



J. Hayman inv. et del.

C. Grignion Sculp.

The Youth, who, led by WISDOM'S guiding Hand,
 Seeks VIRTUE'S Temple, and her Law reveres:
 He, he alone, in HONOUR'S Dome shall stand,
 Crown'd with Rewards, & rais'd above his Peers:
 Recording Annals shall preserve his Name,
 And give his Virtues to immortal FAME.



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THE
PRECEPTOR:
CONTAINING
A General Course of EDUCATION.
WHEREIN
THE FIRST PRINCIPLES
OF
POLITE LEARNING
ARE LAID DOWN
In a Way most suitable for trying the GENIUS,
and advancing the
Instruction of YOUTH.

IN TWELVE PARTS.
Illustrated with MAPS and useful CUTS.

V I Z.

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| I. On READING, SPEAK-
ING, and WRITING
LETTERS. | VI. On DRAWING. |
| II. On ARITHMETIC,
GEOMETRY, and AR-
CHITECTURE. | VII. On LOGIC. |
| III. On GEOGRAPHY
and ASTRONOMY. | VIII. On NATURAL HIS-
TORY. |
| IV. On CHRONOLOGY
and HISTORY. | IX. On ETHICS, or MO-
RALITY. |
| V. On RHETORIC and
POETRY. | X. On TRADE and COM-
MERCE. |
| | XI. On LAWS and GO-
VERNMENT. |
| | XII. On HUMAN LIFE
and MANNERS. |
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The SIXTH EDITION, with Additions, and Improvements.

IN TWO VOLUMES.

THE FIRST VOLUME.

L O N D O N :

Printed for J. DODSLEY, in Pall-Mall.

M.DCC.LXXV.

THE
PREFACE

BY A GENERAL COUNCIL OF EDUCATION

THE FIRST PART

PRINTING



LONDON: PRINTED BY THE GENERAL

PRINTING

PRINTED BY THE GENERAL

THE GENERAL COUNCIL OF EDUCATION
HAS THE HONOUR TO ANNOUNCE
THAT THE FIRST PART OF THE
REPORT OF THE COMMITTEE
ON THE STATE OF THE
EDUCATION OF THE
PEOPLE OF GREAT BRITAIN
AND IRELAND
HAS BEEN PRINTED
AND IS NOW FOR SALE
BY THE GENERAL
PRINTING OFFICE
STATIONERS' HALL
LONDON

GEORGE R.

GEORGE the Second, by the Grace of God, King of Great Britain, France, and Ireland, Defender of the Faith, &c. To all to whom these Presents shall come, Greeting. Whereas Our Trusty and Well-beloved Robert Doddsley, Bookseller, has by his Petition humbly represented unto Us, that he is now printing a Practical Book for the Use of Schools, in Two Volumes, Octavo, illustrated with Maps and useful Cuts, intituled, THE PRECEPTOR, containing a general COURSE of EDUCATION, wherein the first Principles of POLITE LEARNING are laid down, in a Way most suitable for trying the Genius, and advancing the Instruction of Youth, in Twelve Parts. First, on Reading, Speaking, and Writing Letters; Second, on Geometry; Third, on Geography and Astronomy; Fourth, on Chronology and History; Fifth, on Rhetoric and Poetry; Sixth, on Drawing; Seventh, on Logic; Eighth, on Natural History; Ninth, on Ethics, or Morality; Tenth, on Trade and Commerce; Eleventh, on Laws and Government; Twelfth, on Human Life and Manners: That the Petitioner has been at great Expence and Trouble in procuring the several Parts of the said Work to be executed by Persons qualified to do them in the best Manner; and the sole Right and Title to the Copy of the same being vested in the Petitioner: Wherefore he has most humbly prayed Us to grant him Our Royal Privilege and Licence for the sole printing, publishing, and vending of the said Work for the Term of Fourteen Years. We, being willing to give all due Encouragement to a Work that seems to merit particular Regard, as it promises to be of great Use in that important Point, the EDUCATION of YOUTH, are graciously pleased to condescend to his Request. And we do therefore by these Presents, so far as may be agreeable to the Statute in that Behalf made and provided, grant unto him the said Robert Doddsley, his Executors, Administrators, and Assigns, Our Licence for the sole printing and publishing of the said Work for the Term of Fourteen Years, to be computed from the Date hereof; strictly forbidding all Our Subjects within Our Kingdoms and Dominions to reprint or abridge the same, either in the like, or any Size or Manner whatsoever, or to import, buy, vend, utter, or distribute any Copies thereof, reprinted beyond the Seas, during the aforesaid Term of Fourteen Years, without the Consent or Approbation of the said Robert Doddsley, his Executors, Administrators, and Assigns, under their Hands and Seals first had and obtained, as they will answer the contrary at their Peril; whereof the Commissioners and other Officers of Our Customs, the Master, Wardens, and Company of Stationers, are to take Notice, that due Obedience may be rendered to Our Pleasure herein declared. Given at Our Court at St. James's, the fourth Day of February 1741, in the twenty-fourth Year of our Reign.

By His Majesty's Command.

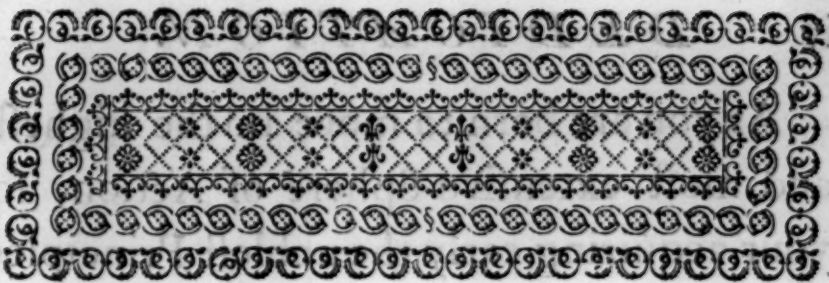
CHESTERFIELD.

GEORGE R.

GEORGE R. [The following text is mirrored bleed-through from the reverse side of the page and is largely illegible due to fading and orientation.]



CH. T. R. 1111



TO HIS ROYAL HIGHNESS

Prince GEORGE.

SIR,



Beg Leave to approach Your
ROYAL HIGHNESS with the
First Principles of Knowledge
and Polite Learning. And I
humbly trust, the Importance of the Pre-
cepts, which I presume at the same Time
to lay before your HIGHNESS, will
atone for the Impropriety of their coming
from me.

As you are born to move in the highest and most extensive Sphere of Action, so your acquiring early the noblest Principles of Virtue, together with the clearest and most comprehensive Views of Men and Things, is of much more Importance than if you were placed in any less exalted Rank of Life. The Happiness and Prosperity of a great, a free, and a powerful Nation, may hereafter depend in some measure on YOUR Virtues, YOUR Temper, YOUR personal Abilities, and Dispositions: How important therefore is your Obligation to acquire and cultivate all useful Knowledge, all generous Sentiments, and benevolent Inclinations, in order to maintain your high Station with Dignity and Honour? By these Means you will command the Hearts of a whole People, promote the Happiness of a mighty Kingdom, and at the same Time establish your own Glory, in the highest Character a
Mortal

DEDICATION.

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Mortal can sustain, the Character of a
PATRIOT KING.

The Language of Truth, though most worthy the Ear of Princes, is that to which they are least accustomed. In the future Progress of your Life you will be approached by few but such as have either some immediate Dependence on, or Expectations from you ; and a Prince will hear from These nothing but the Voice of Praise. It is therefore highly important, that the Voice of your own Heart do not contradict their Encomiums. For this Purpose may YOUR ROYAL HIGHNESS employ this early and most proper Season of your Life in adorning your Mind with useful Knowledge, in warming your Heart with the Love of Virtue, and in cultivating in your Breast that truly Royal Disposition of encouraging and rewarding Merit. May you never suffer the false Charms of

Ease and Pleasure to divert you from this glorious Pursuit, nor consider your exalted Birth as exempting you from the Necessity of these noble Attainments. For it is these alone that can render your Dignity truly graceful, and place you as the just Object of public Esteem and Admiration.

If this Introduction to polite Learning, which I here beg Leave to lay at your ROYAL HIGHNESS's Feet, and which sues for the Honour of your Patronage, shall have the good Fortune to be thought in any Degree worthy the high Distinction to which it aspires; the Pleasure of having afforded the least Assistance to your ROYAL HIGHNESS in the Acquisition of Knowledge, and of having been in any Degree serviceable to the Public in so important a Point as the EDUCATION of YOUTH, will give me the highest Satisfaction, as I shall think

I have

DEDICATION. vii

I have not been altogether an useless Member of Society.

May your ROYAL HIGHNESS, as you grow in Years, advance and improve in every Princely Endowment! And as you are, next to your ROYAL FATHER, the Hope and Expectation of these united Kingdoms; so may you live to be, after HIM, their Guardian and their Glory. I am, with great Respect,

S I R,

Your ROYAL HIGHNESS'S

Anno 1748.

Most Humble and

Obedient Servant,

R. DODSLEY.

DEDICATION

I have not been amongst the
Members of Society.
May your Royal Highnesses, as you
grow in Years, advance and improve in
every Princely Endowment! And as you
are next to your Royal Father, the
Pillar and Support of this united
Kingdom; so may you be so be
His Majesty's Glory.



Yours Royal Highnesses
Anne, Prince of Wales and
George, Duke of Cambridge
Obeying Command
H. Dore



P R E F A C E.

THE Importance of Education is a Point so generally understood and confessed, that it would be of little Use to attempt any new Proof or Illustration of its Necessity and Advantages.

At a time when so many Schemes of Education have been projected, so many Proposals offered to the Public, so many Schools opened for general Knowledge, and so many Lectures in particular Sciences attended; at a time when Mankind seems intent rather upon familiarising than enlarging the several Arts; and every Age, Sex, and Profession, is invited to an Acquaintance with those Studies which were formerly supposed accessible only to such as had devoted themselves to literary Leisure, and dedicated their Powers to philosophical Inquiries; it seems rather requisite that an Apology should be made for any further Attempt to smooch a Path so frequently beaten, or to recommend Attainments so ardently pursued, and so officiously directed.

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That this general Desire may not be frustrated, our Schools seem yet to want some Book which may excite Curiosity by its Variety, encourage Diligence by its Facility, and reward Application by its Usefulness. In examining the Treatises hitherto offered to the Youth of this Nation, there appeared none that did not fail in one or other of these essential Qualities ; none that were not either unpleasing, or abstruse, or crowded with Learning very rarely applicable to the Purposes of common Life.

Every Man, who has been engaged in Teaching, knows with how much Difficulty youthful Minds are confined to close Application, and how readily they deviate to any Thing, rather than attend to that which is imposed as a Task. That this Disposition, when it becomes inconsistent with the Forms of Education, is to be checked, will readily be granted ; but since, though it may be in some Degree obviated, it cannot wholly be suppressed, it is surely rational to turn it to Advantage, by taking Care that the Mind shall never want Objects on which its Faculties may be usefully employed. It is not impossible that this restless Desire of Novelty, which gives so much Trouble to the Teacher, may be often the Struggle of the Understanding, starting from that to which it is not by Nature adapted, and travelling in Search of something on which it may fix with greater Satisfaction. For, without supposing each Man

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particularly marked out by his Genius for particular Performances, it may be easily conceived, that when a numerous Class of Boys is confined indiscriminately to the same Forms of Composition, the Repetition of the same Words, or the Explication of the same Sentiments, the Employment must, either by Nature or Accident, be less suitable to some than others; that the Ideas to be contemplated may be too difficult for the Apprehension of one, and too obvious for that of another: they may be such as some Understandings cannot reach, though others look down upon them as below their Regard. Every Mind, in its Progress through the different Stages of scholastic Learning, must be often in one of these Conditions; must either flag with the Labour, or grow wanton with the Facility, of the Work assigned; and in either State it naturally turns aside from the Track before it. Weariness looks out for Relief, and Leisure for Employment; and surely it is rational to indulge the Wanderings of both. For the Faculties which are too lightly burthened with the Business of the Day, may with great Propriety add to it some other Inquiry; and he that finds himself overwearied by a Task, which perhaps, with all his Efforts, he is not able to perform, is undoubtedly to be justified in addicting himself rather to easier Studies, and endeavouring to quit that which is above his Attainment, for that which Nature has not made him capable of pursuing with Advantage.

That

That therefore this roving Curiosity may not be unsatisfied, it seems necessary to scatter in its Way such Allurements as may with-hold it from an useless and unbounded Dissipation; such as may regulate it without Violence, and direct it without Restraint; such as may suit every Inclination, and fit every Capacity; may employ the stronger Genius by Operations of Reason, and engage the less active or forcible Mind by supplying it with easy Knowledge, and obviating that Despondence which quickly prevails when nothing appears but a Succession of Difficulties, and one Labour only ceases that another may be imposed.

A Book intended thus to correspond with all Dispositions, and afford Entertainment for Minds of different Powers, is necessarily to contain Treatises on different Subjects. As it is designed for Schools, though for the higher Classes, it is confined wholly to such Parts of Knowledge as young Minds may comprehend; and, as it is drawn up for Readers yet unexperienced in Life, and unable to distinguish the useful from the ostentatious or unnecessary Parts of Science, it is requisite that a very nice Distinction should be made, that nothing unprofitable should be admitted for the Sake of Pleasure, nor any Arts of Attraction neglected that might fix the Attention upon more important Studies.

These Considerations produced the Book which is here offered to the Public, as better adapted
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to the great Design of pleasing by Instruction, than any which has hitherto been admitted into our Seminaries of Literature. There are not indeed wanting in the World Compendiums of Science, but many were written at a Time when Philosophy was imperfect, as that of *G. Valla*; many contain only naked Schemes, or Synoptical Tables, as that of *Stierius*; and others are too large and voluminous, as that of *Alstedius*; and, what is not to be considered as the least Objection, they are generally in a Language which, to Boys, is more difficult than the Subject; and it is too hard a Task to be condemned to learn a new Science in an unknown Tongue. As in Life, so in Study, it is dangerous to do more Things than one at a Time; and the Mind is not to be harrassed with unnecessary Obstructions in a Way of which the natural and unavoidable Asperity is such as too frequently produces Despair.

• If the Language, however, had been the only Objection to any of the Volumes already extant, the Schools might have been supplied at a small Expence by a Translation; but none could be found that was not so defective, redundant, or erroneous, as to be of more Danger than Use. It was necessary then to examine, whether upon every single Science there was not some Treatise written for the Use of Scholars, which might be adapted to this Design; so that a Collection might be made from different Authors, without the Necessity of writing new Systems.

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This Search was not wholly without Success; for two Authors were found, whose Performances might be admitted with little Alteration. But so widely does this Plan differ from all others, so much has the State of many Kinds of Learning been changed, or so unfortunately have they hitherto been cultivated, that none of the other Subjects were explained in such a Manner as was now required; and therefore neither Care nor Expence has been spared to obtain new Lights, and procure to this Book the Merit of an Original.

With what Judgement the Design has been formed, and with what Skill it has been executed, the Learned World is now to determine. But, before Sentence shall pass, it is proper to explain more fully what has been intended, that Censure may not be incurred by the Omission of that which the original Plan did not comprehend; to declare more particularly who they are to whose Instruction these Treatises pretend, that a Charge of Arrogance and Presumption may be obviated; to lay down the Reasons which directed the Choice of the several Subjects; and to explain more minutely the Manner in which each particular Part of these Volumes is to be used.

The Title has already declared, that these Volumes are particularly intended for the Use of Schools; and therefore it has been the Care of the Authors to explain the several Sciences, of which they have treated, in the most familiar

miliar Manner; for the Mind, used only to common Expressions and inaccurate Ideas, does not suddenly conform itself to scholastic Modes of Reasoning, or conceive the nice Distinctions of a subtile Philosophy, and may be properly initiated in speculative Studies by an Introduction like this, in which the Grossness of vulgar Conception is avoided, without the Observation of Metaphysical Exactness. It is observed, that in the Course of the natural World no Change is instantaneous, but all its Vicissitudes are gradual and slow; the Motions of Intellect proceed in the like imperceptible Progression, and proper Degrees of Transition from one Study to another are therefore necessary; but let it not be charged upon the Writers of this Book, that they intended to exhibit more than the Dawn of Knowledge, or pretended to raise in the Mind any nobler Product than the Blossoms of Science, which more powerful Institutions may ripen into Fruit.

For this Reason it must not be expected, that in the following Pages should be found a complete Circle of the Sciences; or that any Authors, now deservedly esteemed, should be rejected to make way for what is here offered. It was intended, by the Means of these Precepts, not to deck the Mind with Ornaments, but to protect it from Nakedness; not to enrich it with Affluence, but to supply it with Necessaries. The *Inquiry* therefore was, not what Degrees of Knowledge are desirable, but what
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are in most Stations of Life indispensably required; and the *Choice* was determined not by the Splendor of any Part of Literature, but by the Extent of its Use, and the Inconvenience which its Neglect was likely to produce.

I. The Prevalence of this Consideration appears in the first Part, which is appropriated to the humble Purposes of teaching to *Read*, and *Speak*, and *Write Letters*; an Attempt of little Magnificence, but in which no Man needs to blush for having employed his Time, if Honour be estimated by Use. For Precepts of this Kind, however neglected, extend their Importance as far as Men are found who communicate their Thoughts one to another; they are equally useful to the highest and the lowest; they may often contribute to make Ignorance less inelegant; and may it not be observed, that they are frequently wanted for the Embellishment even of Learning?

In order to shew the proper Use of this Part, which consists of various Exemplifications of such Differences of Stile as require correspondent Diversities of Pronunciation, it will be proper to inform the Scholar, that there are in general three Forms of Stile, each of which demands its particular Mode of Elocution; the *Familiar*, the *Solemn*, and the *Pathetic*. That in the *Familiar*, he that reads is only to talk with a Paper in his Hand, and to indulge himself in all the lighter

Liberties of Voice, as when he reads the common Articles of a News-paper, or a cursory Letter of Intelligence or Business. That the *Solemn* Stile, such as that of a serious Narrative, exacts an uniform Steadiness of Speech, equal, clear, and calm. That for the *Pathetic*, such as an animated Oration, it is necessary the Voice be regulated by the Sense, varying and rising with the Passions. These Rules, which are the most general, admit a great Number of subordinate Observations, which must be particularly adapted to every Scholar; for it is observable, that though very few read well, yet every Man errs in a different Way. But let one Remark never be omitted: inculcate strongly to every Scholar the Danger of copying the Voice of another; an Attempt, which, though it has been often repeated, is always unsuccessful.

The Importance of writing Letters with Propriety justly claims to be considered with Care, since, next to the Power of pleasing with his Presence, every Man would wish to be able to give Delight at a Distance. This great Art should be diligently taught; the rather, because of those Letters which are most useful, and by which the general Business of Life is transacted, there are no *Examples* easily to be found. It seems the general Fault of those who undertake this Part of Education, that they propose for the Exercise of their Scholars, Occasions which rarely happen; such as Congratulations and Condolances, and neglect those without which Life cannot

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proceed. It is possible to pass many Years without the Necessity of writing Panegyrics or Epithalamiums; but every Man has frequent Occasion to state a Contract, or demand a Debt, or make a Narrative of some minute Incidents of common Life. On these Subjects therefore young Persons should be taught to think justly, and write clearly, neatly, and succinctly, lest they come from School into the World without any Acquaintance with common Affairs, and stand idle Spectators of Mankind, in Expectation that some great Event will give them an Opportunity to exert their Rhetoric.

II. The second Place is assigned to *Geometry*; on the Usefulness of which it is unnecessary to expatiate in an Age when Mathematical Studies have so much engaged the Attention of all Classes of Men. This Treatise is one of those which have been borrowed, being a Translation from the Work of Mr. *Le Clerc*; and is not intended as more than the first Initiation. In delivering the fundamental Principles of *Geometry*, it is necessary to proceed by slow Steps, that each Proposition may be fully understood before another is attempted. For which Purpose it is not sufficient, that when a Question is asked in the Words of the Book, the Scholar likewise can in the Words of the Book return the proper Answer; for this may be only an Act of Memory, not of Understanding; it is always proper to vary the Words of the Question, to place the Proposition in different Points of View, and to require

quire of the Learner an Explanation in his own Terms, informing him however when they are improper. By this Method the Scholar will become cautious and attentive, and the Master will know with Certainty the Degree of his Proficiency. Yet, though this Rule is generally right, I cannot but recommend a Precept of *Pardie's*, that when the Student cannot be made to comprehend some particular Part, it should be, for that Time, laid aside, till new Light shall arise from subsequent Observation.

When this Compendium is completely understood, the Scholar may proceed to the Perusal of *Tacquet*, afterwards of *Euclid* himself, and then of the modern Improvers of *Geometry*, such as *Barrow*, *Keil*, and *Sir Isaac Newton*.

III. The Necessity of some Acquaintance with *Geography* and *Astronomy* will not be disputed. If the Pupil is born to the Ease of a large Fortune, no Part of Learning is more necessary to him, than the Knowledge of the Situation of Nations, on which their Interests generally depend; if he is dedicated to any of the Learned Professions, it is scarcely possible that he will not be obliged to apply himself in some Part of his Life to these Studies, as no other Branch of Literature can be fully comprehended without them; if he is designed for the Arts of Commerce or Agriculture, some general Acquaintance with these Sciences will be found extremely useful to him; in a word,

no Studies afford more extensive, more wonderful, or more pleasing Scenes ; and therefore there can be no Ideas impressed upon the Soul, which can more conduce to its future Entertainment.

In the Pursuit of these Sciences, it will be proper to proceed with the same Gradation and Caution as in *Geometry*. And it is always of Use to decorate the Nakedness of Science, by interspersing such Observations and Narratives as may amuse the Mind, and excite Curiosity. Thus, in explaining the State of the Polar Regions, it might be fit to read the Narrative of the *Englishmen* that wintered in *Greenland*, which will make young Minds sufficiently curious after the Cause of such a Length of Night, and Intensity of Cold ; and many Stratagems of the same Kind might be practised to interest them in all Parts of their Studies, and call in their Passions to animate their Inquiries. When they have read this Treatise, it will be proper to recommend to them *Varenus's* Geography, and *Gregory's* Astronomy.

IV. The Study of *Chronology* and *History* seems to be one of the most natural Delights of the Human Mind. It is not easy to live without enquiring by what Means every thing was brought into the State in which we now behold it, or without finding in the Mind some Desire of being informed concerning the Generations of Mankind, that have been in Possession

session of the World before us, whether they were better or worse than ourselves; or what Good or Evil has been derived to us from their Schemes, Practices, and Institutions. These are Inquiries which *History* alone can satisfy; and *History* can only be made intelligible by some Knowledge of *Chronology*, the Science by which Events are ranged in their Order, and the Periods of Computation are settled; and which therefore assist the Memory by Method, and enlighten the Judgment, by shewing the Dependence of one Transaction on another. Accordingly it should be diligently inculcated to the Scholar, that unless he fixes in his Mind some Idea of the Time in which each Man of Eminence lived, and each Action was performed, with some Part of the contemporary History of the rest of the World, he will consume his Life in useless Reading, and darken his Mind with a Crowd of unconnected Events; his Memory will be perplexed with distant Transactions resembling one another, and his Reflections be like a Dream in a Fever, busy and turbulent, but confused and indistinct.

The Technical Part of Chronology, or the Art of computing and adjusting Time, as it is very difficult, so it is not of absolute Necessity, but should however be taught, so far as it can be learned without the Loss of those Hours which are required for Attainments of nearer Concern. The Student may join with this Treatise *Le Clerc's Compendium of History*, and afterwards

terwards may, for the Historical Part of *Chronology*, procure *Helvicus's* and *Isaacson's* Tables; and, if he is desirous of attaining the Technical Part, may first peruse *Holder's Account of Time*, *Hearne's Ductor Historicus*, *Strauchius*, the first Part of *Petavius's Rationarium Temporum*; and at length *Scaliger de Emendatione Temporum*. And for Instruction in the Method of his Historical Studies, he may consult *Hearne's Ductor Historicus*, *Wheare's Lectures*, *Rawlinson's Directions for the Study of History*; and for Ecclesiastical History, *Cave* and *Dupin*, *Baronius* and *Fleury*.

V. *Rhetoric* and *Poetry* supply Life with its highest intellectual Pleasures; and in the Hands of Virtue are of great Use for the Impression of just Sentiments, and Recommendation of illustrious Examples. In the Practice of these great Arts, so much more is the Effect of Nature than the Effect of Education, that nothing is attempted here but to teach the Mind some general Heads of Observation, to which the beautiful Passages of the best Writers may commonly be reduced. In the Use of this it is not proper that the Teacher should confine himself to the Examples before him, for by that Method he will never enable his Pupils to make just Application of the Rules; but, having inculcated the true Meaning of each Figure, he should require them to exemplify it by their own Observations, pointing to them the Poem, or, in longer Works, the Book or Canto in which an Example may be found, and

leaving them to discover the particular Passage by the Light of the Rules which they have lately learned.

For a farther Progress in these Studies, they may consult *Quintilian* and *Vossius's* Rhetoric; the Art of Poetry will be best learned from *Bossu* and *Bobours* in *French*, together with *Dryden's* Essays and Prefaces, the critical Papers of *Addison*, *Spence* on *Pope's* *Odyssey*, and *Trapp's* *Prælectiones Poeticæ*; but a more accurate and philosophical Account is expected from a Commentary upon *Aristotle's* Art of Poetry, with which the Literature of this Nation will be in a short Time augmented.

VI. With regard to the Practice of *Drawing*, it is not necessary to give any Directions, the Use of the Treatise being only to teach the proper Method of imitating the Figures which are annexed. It will be proper to incite the Scholars to Industry, by shewing in other Books the Use of the Art, and informing them how much it assists the Apprehension, and relieves the Memory; and if they are obliged sometimes to *write* Descriptions of Engines, Utensils, or any complex Pieces of Workmanship, they will more fully apprehend the Necessity of an Expedient which so happily supplies the Defects of Language, and enables the Eye to receive what cannot be conveyed to the Mind any other Way. When they have read this Treatise, and practised upon these Figures, their Theory may be improved by the *Jesuit's* *Perspective*,

five, and their manual Operations by other Figures which may be easily procured.

VII. *Logic*, or the Art of arranging and connecting Ideas, of forming and examining Arguments, is universally allowed to be an Attainment in the utmost Degree worthy the Ambition of that Being whose highest Honour is to be endued with Reason; but it is doubted whether that Ambition has yet been gratified, and whether the Powers of Ratiocination have been much improved by any Systems of Art, or methodical Institutions. The *Logic* which for so many Ages kept Possession of the Schools, has at last been condemned as a mere Art of Wrangling, of very little Use in the Pursuit of Truth; and later Writers have contented themselves with giving an Account of the Operations of the Mind, marking the various Stages of her Progress, and giving some general Rules for the Regulation of her Conduct. The Method of these Writers is here followed; but without a servile Adherence to any, and with Endeavours to make Improvements upon all. This Work, however laborious, has yet been fruitless, if there be Truth in an Observation very frequently made, that Logicians out of the School do not reason better than Men unassisted by those Lights which their Science is supposed to bestow. It is not to be doubted but that Logicians may be sometimes overborne by their Passions, or blinded by their Prejudices; and that a Man may reason ill, as he may act ill, not because he does not know what is right, but because

cause he does not regard it; yet it is no more the Fault of his Art that it does not direct him when his Attention is withdrawn from it, than it is the Defect of his Sight that he misses his Way when he shuts his Eyes. Against this Cause of Error there is no Provision to be made, otherwise then by inculcating the Value of Truth, and the Necessity of conquering the Passions. But *Logic* may likewise fail to produce its Effects upon common Occasions, for want of being frequently and familiarly applied, till its Precepts may direct the Mind imperceptibly, as the Fingers of a Musician are regulated by his Knowledge of the Tune. This Readiness of Recollection is only to be procured by frequent Impression; and therefore it will be proper, when *Logic* has been once learned, the Teacher take frequent Occasion, in the most easy and familiar Conversation, to observe when its Rules are preserved, and when they are broken; and that afterwards he read no Authors, without exacting of his Pupil an Account of every remarkable Exemplification or Breach of the Laws of Reasoning.

When this System has been digested, if it be thought necessary to proceed farther in the Study of Method, it will be proper to recommend *Croufaz*, *Watts*, *Le Clerc*, *Wolfius*, and *Locke's* Essay on Human Understanding; and if there be imagined any Necessity of adding the Peripatetic *Logic*, which has been perhaps condemned without a candid Trial, it will be convenient

venient to proceed to *Sanderfon, Wallis, Crackanthorp, and Aristotle.*

VIII. To excite a Curiosity after the Works of God, is the chief Design of the small Specimen of *Natural History* inserted in this Collection; which, however, may be sufficient to put the Mind in Motion, and in some measure to direct its Steps; but its Effects may easily be improved by a philosophic Master, who will every Day find a thousand Opportunities of turning the Attention of his Scholars to the Contemplation of the Objects that surround them, of laying open the wonderful Art with which every Part of the Universe is formed, and the Providence which governs the Vegetable and Animal Creation. He may lay before them the *Religious Philosopher, Ray, Derham's Physico-Theology*, together with the *Speſtacle de la Nature*; and in time recommend to their Perusal *Rondoleti* and *Aldrovandus*.

IX. But how much ſoever the Reason may be ſtrengthened by *Logic*, or the Conceptions of the Mind enlarged by the Study of Nature, it is neceſſary the Man be not ſuffered to dwell upon them ſo long as to neglect the Study of himſelf, the Knowledge of his own Station in the Ranks of Being, and the various Relations to the innumerable Multitudes which ſurround him, and with which his Maker has ordained him to be united for the Reception and Communication of Happineſs. To conſider

sider these aright is of the greatest Importance, since from these arise Duties which he cannot neglect. *Ethics*, or *Morality*, therefore, is one of the Studies which ought to begin with the first Glimpse of Reason, and only end with Life itself. Other Acquisitions are merely temporary Benefits, except as they contribute to illustrate the Knowledge, and confirm the Practice of Morality and Piety, which extend their Influence beyond the Grave, and increase our Happiness through endless Duration.

This great Science, therefore, must be inculcated with Care and Affiduity, such as its Importance ought to incite in reasonable Minds; and for the Prosecution of this Design, fit Opportunities are always at hand. As the Importance of *Logic* is to be shewn by detecting false Arguments; the Excellence of Morality is to be displayed by proving the Deformity, the Reproach, and the Misery of all Deviations from it. Yet it is to be remembered, that the Laws of mere Morality are no coercive Power; and, however they may by Conviction of their Fitness please the Reasoner in the Shade, when the Passions stagnate without Impulse, and the Appetites are secluded from their Objects, they will be of little Force against the Ardour of Desire, or the Vehemence of Rage, amidst the Pleasures and Tumults of the World. To counteract the Power of Temptations, Hope must be excited by the Prospect of Rewards, and Fear by the Expectation of Punishment; and

and Virtue may owe her Panegyrics to Morality, but must derive her Authority from Religion.

When therefore the Obligations of Morality are taught, let the Sanctions of Christianity never be forgotten; by which it will be shewn, that they give Strength and Lustre to each other; Religion will appear to be the Voice of Reason, and Morality the Will of God. Under this Article must be recommended *Tully's Offices*, *Grotius*, *Puffendorff*, *Cumberland's Laws of Nature*, and the excellent Mr. *Addison's Moral and Religious Essays*.

X. Thus far the Work is composed for the Use of Scholars, merely as they are Men. But it was thought necessary to introduce something that might be particularly adapted to that Country for which it is designed; and therefore a Discourse has been added upon *Trade and Commerce*, of which it becomes every Man of this Nation to understand at least the general Principles, as it is impossible that any should be high or low enough not to be in some degree affected by their Declension or Prosperity. It is therefore necessary that it should be universally known among us, what Changes of Property are advantageous, or when the Balance of Trade is on our Side; what are the Products or Manufactures of other Countries; and how far one Nation may in any Species of Traffick obtain or preserve Superiority over another.

ther. The Theory of Trade is yet but little understood, and therefore the Practice is often without real Advantage to the Public: But it might be carried on with more general Success, if its Principles were better considered; and to excite that Attention, is our chief Design. To the Perusal of this Book may succeed that of *Mun* upon Foreign Trade, *Sir Josiah Child*, *Locke* upon Coin, *Davenant's* Treatises, the *British Merchant*, *Dictionnaire de Commerce*, and, for an Abstract or Compendium, *Gee*, and an Improvement that may hereafter be made upon his Plan.

XI. The Principles of *Laws* and *Government* come next to be considered; by which Men are taught to whom Obedience is due, for what it is paid, and in what Degree it may be justly required. This Knowledge, by peculiar Necessity, constitutes a Part of the Education of an *Englishman*, who professes to obey his Prince according to the Law, and who is himself a secondary Legislator, as he gives his Consent, by his Representative, to all the Laws by which he is bound, and has a Right to petition the great Council of the Nation, whenever he thinks they are deliberating upon an Act detrimental to the Interest of the Community. This is therefore a Subject to which the Thoughts of a young Man ought to be directed; and that he may obtain such Knowledge as may qualify him to act and judge as one of a free People, let him be directed to add to this Introduction *Fortescue's*

Treatises, N. Bacon's Historical Discourse on the Laws and Government of England, Blackstone's Commentaries, Temple's Introduction, Locke on Government, Zouch's Elementa Juris Civilis, Plato Redivivus, Gurdon's History of Parliaments, and Hooker's Ecclesiastical Polity.

XII. Having thus supplied the young Student with Knowledge, it remains now that he learns its Application; and that thus qualified to act his Part, he be at last taught to chuse it. For this Purpose a Section is added upon *Human Life and Manners*; in which he is cautioned against the Danger of indulging his *Passions*, of vitiating his *Habits*, and depraving his *Sentiments*. He is instructed in these Points by three Fables, two of which were of the highest Authority in the ancient *Pagan* World. But at this he is not to rest; for if he expects to be wise and happy, he must diligently study the **SCRIPTURES OF GOD.**

Such is the Book now proposed, as the first Initiation into the Knowledge of Things, which has been thought by many to be too long delayed in the present Forms of Education. Whether the Complaints be not often ill-grounded, may perhaps be disputed; but it is at least reasonable to believe, that greater Proficiency might sometimes be made; that real Knowledge might be more early communicated; and that Children might be allowed, without Injury to Health, to spend many of those Hours upon useful Employ-

Employments, which are generally lost in Idleness and Play; therefore the Public will surely encourage an Experiment, by which, if it fails, nobody is hurt; and if it succeeds, all the future Ages of the World may find Advantage; which may eradicate or prevent Vice, by turning to a better Use those Moments in which it is learned or indulged; and in some Sense lengthen Life, by teaching Posterity to enjoy those Years which have hitherto been lost. The Success, and even the Trial of this Experiment, will depend upon those to whom the Care of our Youth is committed; and a due Sense of the Importance of their Trust will easily prevail upon them to encourage a Work which pursues the Design of Improving Education. If any Part of the following Performance shall upon Trial be found capable of Amendment; if any thing can be added or altered, so as to render the Attainment of Knowledge more easy; the Editor will be extremely obliged to any Gentleman, particularly those who are engaged in the Business of Teaching, for such Hints or Observations as may tend towards the Improvement, and will spare neither Expence nor Trouble in making the best Use of their Informations.

Employment, which are generally lost in idleness and idleness; therefore the Public will naturally encourage an Experiment, by which, in the future, both is built; and it is intended, that the future Ages of the World may find Advantage; which may eradicate or prevent Vice, by turning to better Use those Moments in which it is learned or indulged; and in some sense lengthen Life, by teaching Humanity to enjoy those Years which have hitherto been lost. The Success, and even the Trial of this Experiment, will depend upon those to whom the Care of our Youth is committed; and a due Sense of the Importance of their Trust will easily prevail upon them to encourage a Work which pursues the Design of improving Education. It is a Part of the following Performance, that upon Trial be found capable of Amendment; if any thing can be added or altered, so as to render the Attainment of Knowledge more easy; the Author will be extremely obliged to any Gentleman, particularly those who are engaged in the Cause of Teaching, for their Pains or Observations, to render towards the Improvement, and the better Use of their Performances.



PART I.

ON

READING, SPEAKING,

AND

WRITING LETTERS.

VOL. I.

B

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PART I

READING



WRITING

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P A R T I.

INTRODUCTION *.

*** E *** LOCUTION is a Branch of Oratory, the Power and Importance of which is greater than is generally thought; insomuch that Eloquence takes its Name from it.

The great Design and End of a good Pronunciation is, to make the Ideas seem to come from the Heart; and then they will not fail to excite the Attention and Affections of those who hear us.

The Design of this Essay is to shew,

First, What a bad Pronunciation is, and how to avoid it.

Secondly, What a good Pronunciation is, and how to attain it.

I. Now the several Faults of Pronunciation are these following :

1. When the Voice is too loud.

This is very disagreeable to the Hearer, and very inconvenient to the Speaker.

* This contains the Substance of a late excellent Essay on Elocution, published since the first Edition of the PRECEPTOR, by the Reverend Mr. Mason of Chesbunt in Hertfordshire; which I have been persuaded by several eminent Schoolmasters to prefix by way of Introduction to the Lessons on Reading and Speaking.

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It will be very disagreeable to the *Hearers*, if they be Persons of good Taste; who will always look upon it to be the Effect either of *Ignorance* or *Affectation*.

Besides, an overstrained Voice is very inconvenient to the *Speaker*, as well as disgustful to judicious Hearers. It exhausts his Spirits to no Purpose; and takes from him the proper Management and Modulation of his Voice according to the Sense of his Subject; and, what is worst of all, it naturally leads him into a Tone.

Every Man's Voice indeed should fill the Place where he speaks; but if it exceeds its natural Key, it will be neither sweet, nor soft, nor agreeable, because he will not be able to give every Word its proper and distinguishing Sound.

2. Another Fault in Pronunciation is, when the Voice is too low.

This is not so inconvenient to the Speaker, but is as disagreeable to the Hearer, as the other Extreme. It is always offensive to an Audience to observe any thing in the Reader or Speaker that looks like Indolence or Inattention. The Hearer will never be affected whilst he sees the Speaker indifferent.

The Art of governing the Voice consists a good deal in dexterously avoiding these two Extremes; at least, this ought to be first minded: And for a general Rule to direct you herein, I know of none better than this, *viz. carefully to preserve the Key of your Voice; and at the same time to adapt the Elevation and Strength of it to the Condition and Number of the Persons you speak to, and the Nature of the Place you speak in.* It would be altogether as ridiculous in a General who is haranguing an Army, to speak in a low and languid Voice; as in a Person who reads a Chapter in a Family, to speak in a loud and eager one.

3. Another Fault in Pronunciation is, a thick, hasty, chattering Voice.

When a Person mumbles, or (as we say) clips or swallows his Words, that is, leaves out some Syllables in the long Words, and never pronounces some of the short ones at all; but hurries on without any Care to be heard distinctly, or to give his Words their full Sound, or his Hearers the full Sense of them.

This is often owing to a Defect in the Organs of Speech, or a too great Flutter of the animal Spirits; but oftener to a bad Habit uncorrected.

Demosthenes, the greatest Orator Greece ever produced, had, it is said, nevertheless three natural Impediments in Pronunciation;

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etiation; all which he conquered by invincible Labour and Perseverance. One was a Weakness of Voice; which he cured by frequently declaiming on the Sea Shore, amidst the Noise of the Waves. Another was a Shortness of Breath; which he mended by repeating his Orations as he walked up a Hill. And the other was the Fault I am speaking of; a thick mumbling Way of speaking; which he broke himself of by declaiming with Pebbles in his Mouth.

4. Another Fault in Pronunciation is, when Persons speak too quick.

This Manner of Reading may do well enough when we are examining Leases, perusing Indentures, or reciting Acts of Parliament, where there is always a great Superfluity of Words; or in reading a News-Paper, where there is but little Matter that deserves our Attention; but it is very improper in reading Books of Devotion and Instruction, and especially the sacred Scriptures, where the Solemnity of the Subject, or the Weight of the Sense, demands a particular Regard.

The great Disadvantage which attends this Manner of Pronunciation is, that the Hearer loses the Benefit of more than half the good Things he hears, and would fain remember, but cannot: And a Speaker should always have a Regard to the Memory as well as the Understanding of his Hearers.

5. It is also a Fault to speak too slow.

Some are apt to read in a heavy, droning, sleepy Way; and, through mere Carelessness, make Pauses at improper Places. This is very disagreeable. But to hem, hawk, sneeze, yawn, or cough, between the Periods, is more so.

A too slow Elocution is most faulty in reading Trifles that do not require Attention. It then becomes tedious. A Person that is addicted to this slow Way of Speaking should always take care to reward his Hearers Patience with important Sentiments, and compensate the Want of Words by a Weight of Thought.

But a too slow Elocution is a Fault very rarely to be found, unless in aged People, and those who naturally speak so in common Conversation. And in these, if the Pronunciation be in all other respects just, decent, and proper, and especially if the Subject be weighty or intricate, it is very excusable.

6. An irregular or uneven Voice is a great Fault in reading.

That is, when the Voice rises and falls by Fits and Starts, or when it is elevated or depressed unnaturally or unseason-

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ably, without Regard to Sense or Stops ; or always beginning a Sentence with a high Voice, and concluding it with a low one, or *vice versa* ; or always beginning and concluding it with the same Key. Opposite to this is,

7. A flat, dull, uniform Tone of Voice, without Emphasis or Cadence, or any Regard to the Sense or Subject of what is read.

This is a Habit which Children, who have been used to read their Lessons by way of Task, are very apt to fall into, and retain as they grow up ; such a Monotony as Attornies Clerks read in when they examine an ingrossed Deed. This is a great Infelicity when it becomes habitual ; because it deprives the Hearer of the greatest Part of the Benefit or Advantage he might receive by a close Attention to the weighty and interesting Parts of the Subject, which should always be distinguished or pointed out by the Pronunciation. For a just Pronunciation is a good Commentary : And therefore no Person ought to read a Chapter or a Psalm in public, before he hath carefully read it over to himself once or twice in private. But,

Lastly, The greatest and most common Fault of all is, reading with a Tone.

No Habit is more easy to be contracted than this, or more hard to be conquered. This unnatural Tone in Reading and Speaking is very various ; but, whatever it be, it is always disgustful to Persons of Delicacy and Judgement.

Some have a womanish squeaking Tone ; which Persons whose Voices are shrill and weak, and over-strained, are very apt to fall into.

Some have a singing or canting Note ; and others assume a high, swelling, theatrical Tone ; who, being ambitious of the Fame of fine Orators, lay too much Emphasis on every Sentence, and thereby transgress the Rules of true Oratory.

Some affect an awful and striking Tone, attended with solemn Grimace, as if they would move you with every Word, whether the Weight of the Subject bear them out or not. This is what Persons of a gloomy or melancholy Cast of Mind are most apt to give into.

Some have a set, uniform Tone of Voice ; which I have already taken notice of. And others, an odd, whimsical, whining Tone, peculiar to themselves, and not to be described ; only that it is laying the Emphasis on Words which do not require or deserve it.

These

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These are the most common Faults of a bad Pronunciation: Our next Enquiry is,

II. *How to avoid them.*

To this End the few following Rules may be of Service.

1. If you would not read in too loud or too low a Voice, consider whether your Voice be naturally too low or too loud, and correct it accordingly in your ordinary Conversation; by which means you will be better able to correct it in reading. If it be too low, converse with those that are deaf; if too loud, with those whose Voices are low. Begin your Periods with an even moderate Voice, that you may have the Command of it, to raise or fall it as the Subject requires.

2. To cure a thick, confused, cluttering Voice, accustom yourself, both in Conversation and Reading, to pronounce every Word distinct and clear. Observe with what Deliberation some converse and read, and how full a Sound they give to every Word; and imitate them. Do not affect to contract your Words (as some do) or run two into one. This may do very well in Conversation, or in reading familiar Dialogues, but is not so decent in grave and solemn Subjects; especially in reading the sacred Scriptures.

It appears from *Demosthenes's* Case, that this Fault of Pronunciation cannot be cured without much Difficulty, nor will you find his Remedy effectual without Pains or Perseverance.

3. To break a Habit of reading too fast, attend diligently to the Sense, Weight, and Propriety of every Sentence you read, and of every emphatical Word in it. This will not only be an Advantage to yourself, but a double one to your Hearers; for it will at once give them Time to do the same, and excite their Attention when they see yours is fixed. A solemn Pause after a weighty Thought is very beautiful and striking.—A well-timed Stop gives as much Grace to Speech as it does to Music.—Imagine that you are reading to Persons of slow and unready Conceptions; and measure not your Hearer's Apprehension by your own. If you do, you may possibly out-run it. And as in reading you are not at liberty to repeat your Words and Sentences, *that* should engage you to be very deliberate in pronouncing them, that their Sense may not be lost. The Ease and Advantage that will arise both to the Reader and Hearer by a free, full, and deliberate Pronunciation, is hardly to be imagined.

I need lay down no Rules to avoid a too slow Pronunciation; that being a Fault which few are guilty of.

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4. To cure an uneven, desultory Voice, take care that you do not begin your Periods either in too high or too low a Key; for that will necessarily lead you to an unnatural and improper Variation of it. Have a careful Regard to the Nature and Quantity of your Points, and the Length of your Periods; and keep your Mind intent on the Sense, Subject, and Spirit of your Author.

The same Directions are necessary to avoid a *Monotony* in Pronunciation, or a dull, set, uniform Tone of Voice. For if your Mind be but attentive to the Sense of your Subject, you will naturally manage and modulate your Voice according to the Nature and Importance of it.

Lastly, To avoid all Kinds of unnatural and disagreeable Tones, the only Rule is, to endeavour to speak with the same Ease and Freedom as you would do on the same Subject in private Conversation. You hear nobody converse in a Tone; unless they have the Brogue of some other Country, or have got into a Habit (as some have) of altering the natural Key of their Voice when they are talking of some serious Subject in Religion. But I can see no Reason in the World, that when in common Conversation we speak in a natural Voice with proper Accent and Emphasis, yet as soon as we begin to read or talk of Religion, or speak in public, we should immediately assume a stiff, awkward, unnatural Tone. If we are indeed deeply affected with the Subject we read or talk of, the Voice will naturally vary according to the Passion excited; but if we vary it unnaturally, only to seem affected, or with a Design to affect others, it then becomes a Tone, and is offensive.

In reading, then, attend to your Subject, and deliver it just in such a Manner as you would do if you were talking of it. This is the great, general, and most important Rule of all; which, if carefully observed, will correct not only this, but almost all the other Faults of a bad Pronunciation; and give you an easy, decent, graceful Delivery, agreeable to all the Rules of a right Elocution. For, however apt we are to transgress them in reading, we follow them naturally and easily enough in Conversation. And Children will tell a Story with all the natural Graces and Beauties of Pronunciation, however awkwardly they may read the same out of a Book *.

* Let the Tone and Sound of your Voice in reading be the same as it is in speaking, and do not affect to change that natural and easy Sound

Secondly,

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Secondly, *Let us enquire what a good Pronunciation is, and how to attain it.*

I. A good Pronunciation *in reading*, is the Art of managing and governing the Voice so as to express the full Sense and Spirit of your Author in that just, decent, and graceful Manner, which will not only instruct but affect the Hearers; and will not only raise in them the same Ideas he intended to convey, but the same Passions he really felt. This is the great End of reading to others, and this End can only be attained by a proper and just Pronunciation.

And hence we may learn wherein a good Pronunciation *in speaking* consists; which is nothing but a natural, easy, and graceful Variation of the Voice, suitable to the Nature and Importance of the Sentiments we deliver.

A good Pronunciation in both these respects is more easily attained by some than others; as some can more readily enter into the Sense and Sentiments of an Author, and more easily deliver their own, than others can; and at the same time have a more happy Facility of expressing all the proper Variations and Modulations of the Voice than others have. Thus Persons of a quick Apprehension and brisk Flow of animal Spirits (setting aside all Impediments of the Organs) have generally a more lively, just, and natural Elocution, than Persons of a slow Perception and a phlegmatic Cast. However, it may in a good Degree be attained by every one that will carefully attend to and practise those Rules that are proper to acquire it.

And to this End the Observation of the following Rules is necessary.

1. Have a particular Regard to your *Pauses, Emphasis, and Cadence.*

1. To your *Pauses.*

And with respect to this you will in a good measure, in reading, be directed by the Points: But not perfectly; for there are but few Books that are exactly pointed.

The common Stops or Points are these.

A *Comma* (,) ; *Semi-colon* (;) ; *Colon* (:) ; *Period* (.) ; *Interrogation* (?) ; and *Admiration* (!).

wherewith you speak, for a strange, new, awkward Tone, as some do when they begin to read; which would almost persuade our Ears, that the Speaker and the Reader were two different Persons, if our Eyes did not tell us the contrary.

WATTS's Art of Reading.

But

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But, beside these, there are four more Notes or Distinctions of Pause, viz. a *Parenthesis* () ; which requires the Pause of a *Comma* at least, and sometimes a *Semicolon* after it. 2. A *Double Period*, or *Black Line* (—) ; which denotes the Pause of two Periods, or half a Paragraph. 3. A *Paragraph* or *Break* ; when the Line is broke or left imperfect, and the next begins under the second or third Letter of the preceding Line ; and denotes the Pause of two double Periods. 4. A *double Paragraph*, that is, when the next Line not only begins shorter than the preceding, but leaves the Space of a whole Line vacant between them ; which shews that the Voice is to rest during the Time of two Paragraphs.

These Points serve two Purposes. 1. To distinguish the Sense of the Author. 2. To direct the Pronunciation of the Reader.

You are not to fetch your Breath (if it can be avoided) till you come to the Period or Full Stop ; but a discernible Pause is to be made at every one, according to its proper Quantity of Duration.

A Comma stops the Voice while we may privately tell *one* ; a Semicolon *two* ; a Colon *three* ; and a Period *four*.

Where the Periods are very long, you may take Breath at a Colon or Semicolon ; and sometimes at a Comma, but never where there is no Stop at all : And that you may not be under a Necessity to take fresh Breath before you come to a proper Pause, it will be proper to look forward to the Close of the Sentence, and measure the Length of it with your Eye before you begin it ; that if it be long, you may take in a sufficient Supply of Breath to carry you to the End of it.

To break a Habit of taking Breath too often in reading, accustom yourself to read long Periods, such (for instance) as the sixteen first Lines in *Milton's Paradise Lost*.

But, after all, there is so much License admitted, and so much Irregularity introduced into the modern Method of Punctuation, that it is become a very imperfect Rule to direct a just Pronunciation. The Pauses therefore, as well as the Variations of the Voice, must be chiefly regulated by a careful Attention to the Sense and Importance of the Subject.

2. The next Thing to be regarded in reading is, the *Emphasis* ; and to see that it be always laid on the emphatical Word.

When we distinguish any particular Syllable in a Word with a strong Voice, it is called *Accent* ; when we thus distinguish any particular Word in a Sentence, it is called *Emphasis* ; and the Word so distinguished the *emphatical Word*.

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And the emphatical Words (for there are often more than one) in a Sentence are those which carry a Weight or Importance in themselves, or those on which the Sense of the rest depends; and these must always be distinguished by a fuller and stronger Sound of Voice, where-ever they are found, whether in the Beginning, Middle, or End of a Sentence. Take for Instance those Words of the Satyrist:

————— *Rém facias Rém,*

Recte, si possis, si non, quocunque Modo Rém.

HOR.

Get Pláce and Weáith, if possible, with Gráce,

If not, by ány Means get Weáith and Pláce.

POPE.

In these Lines the emphatical Words are accented; and which they are, the Sense will always discover.

Here it may not be amiss briefly to observe two or three Things.

1. That some Sentences are so full and comprehensive, that almost every Word is emphatical: For Instance, that pathetic Expostulation in the Prophecy of Ezekiel,

Why will ye die!

In this short Sentence every Word is emphatical, and on which-ever Word you lay the Emphasis, whether the first, second, third, or fourth, it strikes out a different Sense, and opens a new Subject of moving Expostulation.

2. Some Sentences are equivocal, as well as some Words; that is, contain in them more Senses than one; and which is the Sense intended, can only be known by observing on what Word the Emphasis is laid. For Instance—*Shall you ride to Town to-day?* This Question is capable of being taken in four different Senses, according to the different Words on which you lay the Emphasis. If it be laid on the Word [*you*], the Answer may be, *No, but I intend to send my Servant in my stead.* If the Emphasis be laid on the Word [*ride*], the proper Answer might be, *No, I intend to walk it.* If you place the Emphasis on the Word [*Town*], it is a different Question; and the Answer may be, *No, for I design to ride into the Country.* And if the Emphasis be laid on the Words [*to-day*], the Sense is still something different from all these; and the proper Answer may be, *No, but I shall to-morrow.* Of such Importance sometimes is a right Emphasis, in order to determine the proper Sense of what we read or speak. But I would observe,

3. The

3. The Voice must express, as near as may be, the very Sense or Idea designed to be conveyed by the emphatical Word; by a strong, rough, and violent, or a soft, smooth, and tender Sound.

Thus the different Passions of the Mind are to be expressed by a different Sound or Tone of Voice. *Love*, by a soft, smooth, languishing Voice; *Anger*, by a strong, vehement, and elevated Voice; *Joy*, by a quick, sweet, and clear Voice; *Sorrow*, by a low, flexible, interrupted Voice; *Fear*, by a dejected, tremulous, hesitating Voice: *Courage* hath a full, bold, and loud Voice; and *Perplexity*, a grave, steady, and earnest one. Briefly, in *Exordiums* the Voice should be low; in *Narrations*, distinct; in *Reasoning*, slow; in *Persuasions*, strong: It should thunder in *Anger*, soften in *Sorrow*, tremble in *Fear*, and melt in *Love*.

4. The Variation of the Emphasis must not only distinguish the various Passions described, but the several Forms and Figures of Speech in which they are expressed, *e. g.*

In a *Prosopopœia*, we must change the Voice as the Person introduced would.

In an *Antithesis*, one Contrary must be pronounced louder than the other.

In a *Climax*, the Voice should always rise with it.

In *Dialogues*, it should alter with the Parts.

In *Repetitions*, it should be loudest in the second Place.

Words of Quality and Distinction, or of Praise or Dispraise, must be pronounced with a strong Emphasis.

Hence then it follows,

Lastly, That no Emphasis at all is better than a wrong or misplaced one. For *that* only perplexes, *this* always misleads, the Mind of the Hearer.

3. The next Thing to be observed is *Cadence*.

This is directly opposite to *Emphasis*. *Emphasis* is raising the Voice, *Cadence* is falling it; and, when rightly managed, is very musical.

But, besides a Cadence of Voice, there is such a Thing as Cadence of Stile: And that is, when the Sense being almost expressed and perfectly discerned by the Reader, the remaining Words (which are only necessary to compleat the Period) gently fall of themselves without any emphatical Word among them. And if your Author's Language be pure and elegant, his Cadence of Stile will naturally direct your Cadence of Voice.

Cadence generally takes place at the End of a Sentence; unless it closes with an emphatical Word.

Every

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Every *Parenthesis* is to be pronounced in Cadence ; that is, with a low Voice, and quicker than ordinary ; that it may not take off the Attention too much from the Sense of the Period it interrupts. But all *Apostrophes* and *Prosopopæias* are to be pronounced in *Emphasis*.

So much for *Pauses*, *Emphasis*, and *Cadence* : A careful Regard to all which is the first Rule for attaining a right Pronunciation.

II. If you would acquire a just Pronunciation in Reading, you must not only take in the full Sense, but enter into the Spirit of your Author ; for you can never convey the Force and Fulness of his Ideas to another till you feel them yourself : No Man can read an Author he does not perfectly understand and taste.

“ The great Rule which the Masters of Rhetoric so much
 “ press, can never enough be remembered ; *that to make a*
 “ *Man speak well and pronounce with a right Emphasis, he*
 “ *ought thoroughly to understand all that he says, be fully*
 “ *persuaded of it, and bring himself to have those Affections*
 “ *which he desires to infuse into others.* He that is inwardly
 “ persuaded of the Truth of what he says, and that hath a
 “ Concern about it in his Mind, will pronounce with a natural
 “ Vehemence that is far more lovely than all the Strains that
 “ Art can lead him to. An Orator must endeavour to feel
 “ what he says, and then he will speak so as to make others
 “ feel it *.”

The same Rules are to be observed in reading Poetry and Prose : Neither the Rhime nor the Numbers should take off your Attention from the Sense and Spirit of your Author : It is this only that must direct your Pronunciation in Poetry as well as Prose. When you read Verse, you must not at all favour the Measure or Rhime ; *that* often obscures the Sense, and spoils the Pronunciation : For the great End of Pronunciation is, to elucidate and heighten the Sense ; that is, to represent it not only in a clear but a strong Light. Whatever then obstructs this is carefully to be avoided, both in Verse and Prose. Nay, this ought to be more carefully observed in reading Verse than Prose ; because the Author, by a constant Attention to his Measures and Rhime, and the Exaltation of his Language, is often very apt to obscure his Sense ; which therefore requires the more Care in the Reader to discover and distinguish it by the Pronunciation. And if, when you

* Burnet's *Pastoral Care*, p. 228.

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read Verse with proper Pause, Emphasis, and Cadence, and a Pronunciation varied and governed by the Sense, it be not harmonious and beautiful, the Fault is not in the Reader, but the Author. And if the Verse be good, to read it thus will improve its Harmony; because it will take off that Uniformity of Sound and Accent which tires the Ear, and makes the Numbers heavy and disagreeable.

III. Another important Rule to be observed in Elocution is, *Study Nature*. By this I mean,

1. Your own natural Dispositions and Affections: And those Subjects that are most suitable to them, you will easily pronounce with a beautiful Propriety: And to heighten the Pronunciation, the natural Warmth of the Mind should be permitted to have its Course under a proper Rein and Regulation.

2. Study the natural Dispositions and Affections of others: For some are much more easily impressed and moved one way, and some another. And an Orator should be acquainted with all the Avenues to the Heart.

3. Study the most easy and natural Way of expressing yourself, both as to the Tone of Voice and the Mode of Speech. And this is best learnt by Observations on common Conversation; where all is free, natural, and easy; where we are only intent on making ourselves understood, and conveying our Ideas in a strong, plain, and lively Manner, by the most natural Language, Pronunciation, and Action. And the nearer our Pronunciation in public comes to the Freedom and Ease of that we use in common Discourse (provided we keep up the Dignity of the Subject, and preserve a Propriety of Expression) the more just, and natural, and agreeable it will generally be.

Above all Things, then, *Study Nature*; avoid Affectation; never use Art, if you have not the Art to conceal it: For whatever does not appear natural can never be agreeable, much less persuasive.

IV. Endeavour to keep your Mind collected and composed.

Guard against that Flutter and Timidity of Spirit which is the common Infelicity of young, and especially bashful Persons, when they first begin to speak or read in public. This is a great Hindrance both to their Pronunciation and Invention; and at once gives both themselves and their Hearers an unnecessary Pain. It will by constant Opposition wear off.

And

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And the best Way to give the Mind a proper Degree of Assurance and Self-Command at such a Time, is,

1. To be intire Master of your Subject; and a Consciousness that you deliver to your Audience nothing but what is well worth their hearing, will give you a good Degree of Courage.

2. Endeavour to be wholly engaged in your Subject; and when the Mind is intent upon and warmed with it, it will forget that awful Deference it before paid to the Audience, which was so apt to disconcert it.

3. If the Sight of your Hearers, or any of them, discompose you, keep your Eyes from them.

V. Be sure to keep up a Life, Spirit, and Energy in the Expression; and let the Voice naturally vary according to the Variation of the Stile and Subject.

Whatever be the Subject, it will never be pleasing, if the Stile be low and flat; nor will the Beauty of the Stile be discovered, if the Pronunciation be so.

Cicero observes, there must be a *Glow* in our Stile, if we would warm our Hearers. And who does not observe how ridiculous it is to pronounce the *ardens Verbum* in a cold lifeless Tone? And the Transition of the Voice (as before observed) must always correspond with that of the Subject, and the Passions it was intended to excite.

VI. In order to attain a just and graceful Pronunciation, you should accustom yourself frequently to hear those who excel in it, whether at the Bar or in the Pulpit; where you will see all the fore-mentioned Rules exemplified, and be able to account for all those Graces and Beauties of Pronunciation which always pleased you, but you did not know why.

And indeed, the Art of Pronunciation, like all others, is better learnt by Imitation than Rule: But to be first acquainted with the Rules of it, will make the Imitation more easy. And beyond all that has been said, or can be described, you will observe a certain Agreeableness of Manner in some Speakers that is natural to them, not to be reduced to any Rule, and to be learnt by Imitation only; nor by that, unless it be in some Degree natural to you.

Lastly, You should frequently exercise yourself to read aloud according to the foregoing Rules.

It is Practice only that must give you the Faculty of an elegant Pronunciation. This, like other Habits, is only to be attained by often repeated Acts.

Orators

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Orators indeed, as well as Poets, must be born so, or they will never excel in their respective Arts: But that Part of Oratory which consists in a decent and graceful Pronunciation (provided there be no Defect in the Organs of Speech) may be attained by Rule, Imitation, and Practice; and, when attained, will give a Beauty to your Speech, a Force to your Thoughts, and a Pleasure to the Hearers, not to be expressed; and which all will admire, but none can imitate, unless they are first prepared for it by Art and Nature.

In fine, the great Advantage of a just Pronunciation is, that it will please all, whether they have no Taste, a bad Taste, or a good Taste.

But as under the Word [Pronunciation] the Ancients comprehended *Action* as well as *Elocution*, and as a few general Rules concerning that may be of use to such as speak in public, it may not be improper here briefly to subjoin them.

The Action, then, should be as easy and as natural as the Elocution; and, like that, must be varied and directed by the Passions.

An affected Violence of Motion is as disgustful as an affected Vehemence of Voice; and no Action, as bad as no Emphasis: Which two Faults commonly go together, as do the other two just before mentioned.

Those Parts of the Body that are to be principally employed in Oratorical Action, are the *Head*, the *Face*, the *Eyes*, the *Hands*, and the upper Part of the *whole Body*.

1. The *Head*. This should generally be in an erect Posture; turning sometimes on one Side, and sometimes on the other, that the Voice may be heard by the whole Audience, and a Regard paid to the several Parts of it.

It should always be on the same Side with the Action of the Hands and Body, except when we express an Abhorrence or a Refusal of any thing, which is done by rejecting it with the Right-hand, and turning away the Head to the Left; as in that Sentence—*Dii talem terris avertete pestem*—where such an Action is very proper in pronouncing the Word *avertete*.

2. The *Countenance*. In this is the Seat of the Soul, and the very Life of Action. Every Passion, whilst uttered with the Tongue, should be painted in the Face. There is often more Eloquence in a Look than any Words can express. By this we are awed, charmed, incensed, softened, grieved, rejoiced, raised, or dejected, according as we catch the Fire of the Speaker's Passion from his Face. In short, there is no End in recounting the Force and Effects of this dumb Oratory; which Nature only teaches, and which Persons of low Passions

Passions lose all the Advantages of. Look well upon a good Piece of Painting where the Passions are strongly expressed, and you will conceive the Power of it.

3. The *Eyes*. These should be carried from one Part of the Audience to another, with a modest and decent Respect; which will tend to recall and fix their Attention, and animate your own Spirit by observing their Attention fixed. But if their Affections be strongly moved, and the observing it be a Means of raising your own too high; it will be necessary then to keep the Eye from off them. For though an Orator should always be animated, he should never be overcome by his Passions.

The Language of the Eye is inexpressible. It is the Window of the Soul; from which sometimes the whole Heart looks out at once, and speaks more feelingly than all the warmest Strains of Oratory; and comes effectually in Aid of it, when the Passion is too strong to be uttered.

4. The *Hands*.

The Left-hand should never be used alone; unless it be to attend the Motion of the Head and Eyes in an Address to the Audience on the Left-side.

The Right-hand may be often used alone.

When you speak of the Body, you may point to it with the middle Finger of your Right-hand.

When you speak of your Soul or Conscience, you may lay your Right-hand gently on your Breast.

It should be often displayed with an easy Motion, to favour an Emphasis; but seldom or never be quite extended.

All its Motions should be from the Left to the Right.

Both the Hands displayed, and the Arms extended, is a violent Action, and never just or decent unless the Audience be noisy, and Part of them at a Distance from the Speaker, and he is labouring to be heard; and then they should never be extended higher than the Head, unless pointing at something above the Audience*.

The Motion of the Hand should always correspond with those of the Head and Eyes; as *they* should with the Passions expressed.

In deliberate Proof or Argumentation, no Action is more proper or natural, than gently to lay the first Finger of the Right-hand on the Palm of the Left.

Of what great Use the proper Motion of the Hand is in assisting Pronunciation, and how many Passions may be strong-

* See *Raphael's* Cartoon, representing *St. Paul* preaching at *Athens*.

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ly indicated thereby, when attended with that of the Head and Eyes, is not easy to be described, but is soon observed in common Conversation.

Lastly, The Posture of the Body.

This should be usually erect; not continually changing, nor always motionless: Declining, in Acts of Humiliation; in Acts of Praise and Thanksgiving, raised.

It should always accompany the Motion of the Hands, Head, and Eyes, when they are directed to any particular Part of the Audience; but never so far as to let the Back be turned to any Part of it.

But let it suffice just to hint at these Things. They who desire to see them more largely treated of, may consult *Quintilian de Institutione Oratoria*, lib. xi. cap. 3.

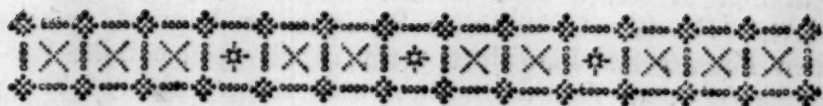
After all, with regard to Action, the great Rule is (the same as in Pronunciation) to *follow Nature, and avoid Affectation*.

The Action of the Body, and the several Parts of it, must correspond with the Pronunciation, as that does with the Style, and the Style with the Subject. A perfect Harmony of all which compleats the Orator*.

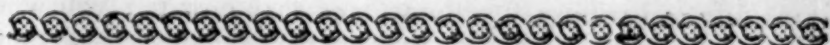
* Those who desire to be more particularly acquainted with this Subject, and the several other Branches of Oratory, I would advise not to trust altogether to the Rules of modern Writers, but to repair to the Fountain Head; and converse with the great Masters and Teachers of this Art among the Ancients; particularly *Dionysius of Halicarnassus, Cicero, Quintilian, and Longinus*.



LESSONS



LESSONS *for* READING.



LESSON I.

On the Duty of Children to Parents.

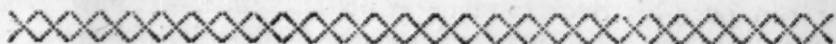
THE Course and Compass of God's Providence, and his Methods of establishing and evidencing the Measures of reciprocal Duty, are no-where more remarkable than in the mutual Obligations between Parents and their Children. The Child comes into the World naked and helpless, and from himself more destitute of the natural Means of Security and Support than almost any of the inferior Creatures. In this Exigency the Paternal Care and Tenderness steps in to his Relief, supplies all his Necessities, and relieves all his Wants; bears with all his untowardly Dispositions, at an Age when he is neither capable of being corrected or convinced; and not only provides the properest Food for him when he is incapable of providing any for himself, but likewise administers it when he is incapable of feeding himself; bears with all Degrees of his Folly and Impertinence, listens to all his trifling and idle Inquiries, not only with Patience, but with Pleasure, till they gradually conduct him to Health, and Strength, and Knowledge. But the Child is not long arrived at this Perfection of his Nature, before his Parents begin to fall gradually into the same Infirmities through which they but lately conducted and supported their Children, and to need the same Assistance which they lately lent. And first they begin to grow sickly, and then they call for the Aid of that Health which they cultivated and took care of in their Children. The Loss of Chearfulness and Good-humour commonly succeeds the Loss of Health; the old Parents are un-

easy, and fret at all about them. And now is the Time for Children to return that Tenderneſs and Patience to their Parents Peeviſhneſs, without Sourneſs or Reproof, which their Parents had long lent them in all their childiſh Perverſeneſs, at an Age when they were not capable of being corrected. In the next place, the old Parents grow troubleſomely talkative, and (as Youth is too apt to think) impertinent, and dwell eternally upon the Obſervations and Adventures of their Times and early Years. Remember, you alſo had your Time of being talkative and impertinent, and your Parents bore with you; but with this Difference, you aſked them ſilly and trifling Queſtions, and they now tell you wiſe and uſeful Obſervations. But they are troubleſome becauſe they tell them too often. The Answer to this is very obvious; if your Parents bore your Folly, you may well bear their Wiſdom; and although perhaps they talk more than is neceſſary to inform you of preſent Things, yet their Converſation turns moſtly upon Things paſt, perhaps paſt many years before you came into the World, and conſequently ſuch as they muſt know a thouſand Times better than you. Or though they ſhould talk more than is neceſſary to inform you, they do not talk more than is neceſſary to inform your Servants, or your Children, who are now come to an Age of aſking many Queſtions; and therefore Providence hath well appointed, that their Grandfather or their Grandmother are now in an Humour to answer them all, and to ſupply them with a Store of uſeful Obſervations which they want, nay, which they want to hear over and over again, which they want to have inculcated a thouſand times, and which, without this Aſſiſtance, would acquire a Courſe of Years to acquire for themſelves. So that the Humour of Talkativeness, which is commonly thought ſo troubleſome in old People, hath its Uſe, and is moſt excellently appointed by Almighty God. But ſay it were not, the Children, in bearing with it, do but barely return their Parents what they long ſince owed them. In the next place, the Strength of the old Parents fails them, and they cannot walk without a Support; but ſure, you will not let them want one! How many Years did they bear you in their Arms? How many more did they lead you where you would be, and ſaved you from Falling and from Danger? And will you now ſuffer thoſe old Limbs to totter and fall to the Earth, which ſo often ſupported and ſaved yours when they were weak and tender, and unable to ſupport and ſave themſelves? Certainly you will not, you cannot at once be guilty of ſo much Cruelty and Ingratitude. In the laſt place, the Underſtanding of the old Parents begins to fail, and

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the Strength of their Minds doth not long outlive the Strength of their Bodies, but decays gradually till they become again Children ; their Teeth fall, and their Tongues falter, and they are once more Infants, and are now confined to their Beds, as they were at first to their Cradles. This is the last Stage of Life ; and here they demand all that Care and Compassion, and Tendernefs at your Hands, when they are just going out of the World, which you called for at theirs when you first came into it.



LESSON II.

The Folly of PRIDE.

IF there be any thing which makes human Nature appear ridiculous to Beings of superior Faculties, it must be *Pride*. They know so well the Vanity of those imaginary Perfections that swell the Heart of Man, and of those little super-numerary Advantages, whether in Birth, Fortune, or Title, which one Man enjoys above another, that it must certainly very much astonish, if it does not very much divert them, when they see a Mortal puffed up, and valuing himself above his Neighbours on any of these Accounts, at the same time that he is obnoxious to all the common Calamities of the Species. To set this Thought in its true Light, we will fancy, if you please, that yonder Mole-hill is inhabited by reasonable Creatures, and that every Pismire (his Shape and Way of Life excepted) is endowed with human Passions. How should we smile to hear one give us an Account of the Pedigrees, Distinctions, and Titles that reign among them !—Observe how the whole Swarm divides and makes way for the Pismire that passes through them ! You must understand he is an Emmet of Quality, and has better Blood in his Veins than any Pismire in the Mole-hill. Don't you see how sensible he is of it, how slow he marches forward, how the whole Rabble of Ants keep their Distance ?—Here you may observe one placed upon a little Eminence, and looking down on a long Row of Labourers. He is the richest Insect on this Side the Hillock, he has a Walk of half a Yard in Length, and a quarter of an Inch in Breadth ; he keeps a hundred menial Servants, and has at least fifteen Barley-corns in his Granary. He is now chiding and beslaving

the Emmet that stands before him, and who, for all that we can discover, is as good an Emmet as himself.

But here comes an Insect of Figure ! Don't you take notice of a little white Straw that he carries in his Mouth ? That Straw, you must understand, he would not part with for the longest Tract about the Mole-hill ; did you but know what he has undergone to purchase it ! See, the Ants of all Qualities and Conditions swarm about him ; should this Straw drop out of his Mouth, you would see all this numerous Circle of Attendants follow the next that took it up, and leave the discarded Insect, or run over his Back to come at his Successor.—If now you have a mind to see all the Ladies of the Mole-hill, observe first the Pismire that listens to the Emmet on her Left-hand, at the same time that she seems to turn her Head away from him. He tells this poor Insect that she is a Goddess, that her Eyes are brighter than the Sun, that Life and Death are at her Disposal. She believes him, and gives herself a thousand little Airs upon it.—Mark the Vanity of the Pismire on your Left-hand ! she can scarce crawl with Age, but you must know she values herself upon her Birth, and, if you mind, spurns at every one that comes within her Reach. The little nimble Coquette that is running along by the Side of her is a Wit ; she has broke many a Pismire's Heart ; do but observe what a Drove of Lovers are running after her.—We will here finish the imaginary Scene ; but first of all, to draw the Parallel closer, will suppose, if you please, that Death comes down upon the Mole-hill in the Shape of a Cock-Sparrow, who picks up without Distinction the Pismire of Quality and his Flatterers, the Pismire of Substance and his Day-Labourers, the White-Straw Officer and his Sycophants, with all the Goddesses, Wits, and Beauties of the Mole-hill.

May we not imagine, that Beings of superior Natures and Perfections regard all the Instances of Pride and Vanity among our own Species in the same kind of View, when they take a Survey of those who inhabit the Earth ? Or, in the Language of an ingenious *French* Poet, those Pismires that people this Heap of Dirt which human Vanity has divided into Climates and Regions ?

LESSON III.

On CONVERSATION.

SOCIETY subsists amongst Men by a mutual Communication of their Thoughts to each other. Words, Looks, Gesture, and different Tones of Voice, are the Means of that Communication. I speak, and in an Instant my Ideas and Sentiments are communicated to the Person who hears me; my whole Soul in a manner passes into his. This Communication of my Thoughts is again the Occasion of others in him, which he communicates to me in his turn. Hence arises one of the most lively of our Pleasures; by this means too we enlarge our Knowledge, and this reciprocal Commerce is the principal Source of our intellectual Wealth.

The first Rule with regard to Conversation is, to observe all the Laws of Politeness in it. This Rule is of all others the most indispensable. It is not in every one's Power perhaps to have fine Parts, say witty Things, or tell a Story agreeably; but every Man may be polite, if he pleases, at least to a certain Degree. Politeness has infinitely more Power to make a Person be loved, and his Company sought after, than the most extraordinary Parts or Attainments he can be Master of. These scarce ever fail of exciting Envy, and Envy has always some Ill-will in it. If you would be esteemed, make yourself be loved; we always esteem the Person we love more than he deserves, and the Person we do not love, as little as ever we can; nay, we do all we can to despise him, and commonly succeed in it.

Great Talents for Conversation require to be accompanied with great Politeness; he who eclipses others, owes them great Civilities; and, whatever a mistaken Vanity may tell us, it is better to *please* in Conversation than to *shine* in it.

Another general Rule in Conversation is, to conform yourself to the Taste, Character, and present Humour of the Persons you converse with. This Rule is a Consequence of the foregoing; Politeness dictates it, but it requires a large Fund of Good-nature and Complaisance to observe it; not but that a Person must follow his Talent in Conversation; do not force Nature, no one ever did it with Success. If you have not a Talent for Humour, or Raillery, or Story-telling, never attempt them. Contain yourself also

within the Bounds of what you know, and never talk upon Things you are ignorant of, unless it be with a View to inform yourself. A Person cannot fail in the Observance of this Rule without making himself ridiculous; and yet how often do we see it transgressed! Some who on War or Politics could talk very well, will be perpetually haranguing on Works of Genius and the Belles Lettres; others who are capable of Reasoning, and would make a Figure in grave Discourse, will yet constantly aim at Humour and Pleasantry, though with the worst Grace imaginable. Hence it is, that we see a Man of Merit sometimes appear like a Coxcomb, and hear a Man of Genius talk like a Fool.

Avoid Disputes as much as possible. In order to appear easy and well-bred in Conversation, you may assure yourself it requires more Wit, as well as more Good-humour, to improve, than to contradict the Notions of another; but if you are at any time obliged to enter on an Argument, give your Reasons with the utmost Coolness and Modesty, two Things which scarce ever fail of making an Impression on the Hearers. Besides, if you are neither dogmatical, nor shew either by your Actions or Words that you are full of yourself, all will the more heartily rejoice at your Victory; nay, should you be pinched in your Argument, you may make your Retreat with a very good Grace; you were never positive, and are now glad to be better informed. This has made some approve the *Socratical* Way of Reasoning, where, while you scarce affirm any thing, you can hardly be caught in an Absurdity; and though possibly you are endeavouring to bring over another to your Opinion, which is firmly fixed, you seem only to desire Information from him.

In order to keep that Temper, which is so difficult, and yet so necessary to preserve, you may please to consider, that nothing can be more unjust or ridiculous, than to be angry with another, because he is not of your Opinion. The Interest, Education, and Means by which Men attain their Knowledge, are so very different, that it is impossible they should all think alike, and he has at least as much Reason to be angry with you, as you with him. Sometimes, to keep yourself cool, it may be of Service to ask yourself fairly, what might have been your Opinion, had you all the Biases of Education and Interest your Adversary may possibly have? But if you contend for the Honour of Victory alone, you may lay down this as an infallible Maxim, that you cannot make a more false Step, or give your Antagonist a greater Advantage over you, than by falling into a Passion.

When

When an Argument is over, how many weighty Reasons does a Man recollect, which his Heat and Violence made him utterly forget?

It is yet more absurd to be angry with a Man because he does not apprehend the Force of your Reasons, or give weak ones of his own. If you argue for Reputation, this makes your Victory the easier; he is certainly in all Respects an Object of your Pity, rather than Anger; and if he cannot comprehend what you do, you ought to thank Nature for her Favours, who has given you so much the clearer Understanding.

You may please to add this Consideration, that among your Equals no one values your Anger, which only preys upon its Master; and perhaps you may find it not very consistent either with Prudence or your Ease, to punish yourself whenever you meet with a Fool or a Knave.

Lastly, if you propose to yourself the true End of Argument, which is Information, it may be a seasonable Check to your Passion; for if you search purely after Truth, it will be almost indifferent to you where you find it. I cannot in this Place omit an Observation which I have often made, namely, that nothing procures a Man more Esteem and less Envy from the whole Company, than if he chuses the Part of Moderator, without engaging directly on either Side in a Dispute. This gives him the Character of impartial, furnishes him with an Opportunity of sifting Things to the Bottom, of shewing his Judgment, and of sometimes making handsome Compliments to each of the contending Parties. I shall close this Subject with giving you one Caution: When you have gained a Victory, do not push it too far; it is sufficient to let the Company and your Adversary see it is in your Power, but that you are too generous to make use of it.

LESSON IV.

On the same Subject.

THE Faculty of interchanging our Thoughts with one another, or what we express by the Word *Conversation*, has always been represented by moral Writers, as one of the noblest Privileges of Reason, and which more particularly sets Mankind above the Brute Part of the Creation.

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Though nothing so much gains upon the Affections as this *Extempore Eloquence*, which we have constantly Occasion for, and are obliged to practise every Day, we very rarely meet with any who excel in it.

The Conversation of most Men is disagreeable, not so much for want of Wit and Learning, as of Good-breeding and Discretion.

If you resolve to please, never speak to gratify any particular Vanity or Passion of your own, but always with a Design either to divert or inform the Company. A Man who only aims at one of these, is always easy in his Discourse; he is never out of Humour at being interrupted, because he considers that those who hear him are the best Judges, whether what he was saying could either divert or inform them.

A modest Person seldom fails to gain the Good-will of those he converses with; because nobody envies a Man who does not appear to be pleased with himself.

We should talk extremely little of ourselves. Indeed what can we say? It would be as imprudent to discover our Faults, as ridiculous to count over our fancied Virtues. Our private and domestic Affairs are no less improper to be introduced into Conversation. What does it concern the Company how many Horses you keep in your Stables? or whether your Servant is most Knave or Fool?

A Man may equally affront the Company he is in, by engrossing all the Talk, or observing a contemptuous Silence.

Before you tell a Story, it may be generally not amiss to draw a short Character, and give the Company a true Idea, of the principal Persons concerned in it; the Beauty of most Things consisting not so much in their being said or done, as in their being said or done by such a particular Person, or on such a particular Occasion.

Notwithstanding all the Advantages of Youth, few young People please in Conversation; the Reason is, that Want of Experience makes them positive, and what they say is rather with a Design to please themselves than any one else.

It is certain, that Age itself should make many Things pass well enough, which would have been laughed at in the Mouth of one much younger.

Nothing, however, is more insupportable to Men of Sense, than an empty formal Man, who speaks in Proverbs, and decides all Controversies with a short Sentence. This Piece of Stupidity is the more insufferable, as it puts on the Air of Wisdom.

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A prudent Man will avoid talking much of any particular Science for which he is remarkably famous. There is not methinks an handsomer Thing said of Mr. Cowley in his whole Life, than that none but his intimate Friends ever discovered he was a great Poet by his Discourse. Besides the Decency of this Rule, it is certainly founded in good Policy. A Man who talks of any thing he is already famous for, has little to get, but a great deal to lose. I might add, that he who is sometimes silent on a Subject where every-one is satisfied he could speak well, will often be thought no less knowing in other Matters where perhaps he is wholly ignorant.

Whenever you commend, add your Reasons for doing so; it is this which distinguishes the Approbation of a Man of Sense from the Flattery of Sycophants and Admiration of Fools.

Raillery is no longer agreeable than while the whole Company is pleased with it. I would least of all be understood to except the Person raillied.

Though Good-humour, Sense, and Discretion seldom fail to make a Man agreeable, it may be no ill Policy sometimes to prepare yourself in a particular Manner for Conversation, by looking a little farther than your Neighbours into whatever is become a reigning Subject. If our Armies are besieging a Place of Importance abroad, or our House of Commons debating a Bill of Consequence at home, you can hardly fail of being heard with Pleasure, if you have nicely informed yourself of the Strength, Situation, and History of the first, or of the Reasons for and against the latter. It will have the same Effect, if, when any single Person begins to make a Noise in the World, you can learn some of the smallest Accidents in his Life or Conversation, which, though they are too fine for the Observation of the Vulgar, give more Satisfaction to Men of Sense (as they are the best Opening to a real Character) than the Recital of his most glaring Actions. I know but one ill Consequence to be feared from this Method, namely, that coming full charged into Company, you should resolve to unload, whether an handsome Opportunity offers itself or no.

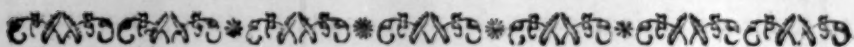
Though the asking of Questions may plead for itself the specious Name of Modesty, and a Desire of Information, it affords little Pleasure to the rest of the Company, who are not troubled with the same Doubts; besides which, he who asks a Question would do well to consider that he lies wholly at the Mercy of another before he receives an Answer,

Nothing

Nothing is more silly than the Pleasure some People take in what they call *speaking their Minds*. A Man of this Make will say a rude Thing for the mere Pleasure of saying it; when an opposite Behaviour, full as innocent, might have preserved his Friend, or made his Fortune.

It is not impossible for a Man to form to himself as exquisite a Pleasure in complying with the Humour and Sentiments of others, as of bringing others over to his own; since it is the certain Sign of a superior Genius, that can take and become whatever Dress it pleases.

I shall only add, that, besides what I have here said, there is something that can never be learnt, but in the Company of the Polite. The Virtues of Men are catching as well as their Vices, and your own Observations added to these, will soon discover what it is that commands Attention in one Man, and makes you tired and displeased with the Discourse of another.



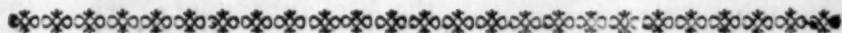
LESSON V.

On P O E T R Y.

THOUGH Invention be the Mother of Poetry, yet this Child is, like all others, born naked, and must be nourished with Care, cloathed with Exactness and Elegance, educated with Industry, instructed with Art, improved by Application, corrected with Severity, and accomplished with Labour and with Time, before it arrives at any great Perfection or Growth. 'Tis certain, that no Composition requires so many several Ingredients, or of more different Sorts, than this; nor that to excel in any Qualities, there are necessary so many Gifts of Nature, and so many Improvements of Learning and of Art. For there must be an universal Genius, of great Compass, as well as great Elevation. There must be a sprightly Imagination or Fancy, fertile in a thousand Productions, ranging over infinite Ground, piercing into every Corner, and by the Light of that true poetical Fire, discovering a thousand little Bodies or Images in the World, and Similitudes among them, unseen to common Eyes, and which could not be discovered without the Rays of that Sun. Besides the Heat of Invention and Liveliness of Wit, there must be the Coldness of good Sense, and Soundness

ness of Judgment, to distinguish between Things and Conceptions, which at first sight, or upon short Glance, seem alike; to chuse among infinite Productions of Wit and Fancy, which are worth preserving and cultivating, and which are better stifled in the Birth, or thrown away when they are born, as not worth bringing up.

Without the Forces of Wit, all Poetry is flat and languishing; without the Succours of Judgment, 'tis wild and extravagant. The true Wonder of Poesy is, that such Contraries must meet to compose it: a Genius both penetrating and solid; in Expression both Delicacy and Force; and the Frame or Fabric of a true Poem, must have something both sublime and just, amazing and agreeable. There must be a great Agitation of Mind to invent, a great Calm to judge and correct; there must be upon the same Tree, and at the same Time, both Flower and Fruit. To work up this Mental into exquisite Figure, there must be employed the Fire, the Chissel, and the File. There must be a general Knowledge both of Nature and of Arts; and to go the lowest that can be, there are required Genius, Judgment, and Application; for without this last, all the rest will not serve the Turn, and none ever was a great Poet that applied himself much to any thing else.



LESSON VI.

A VISION.

WHATEVER Industry and Eagerness the modern Discoverers have shewn for the Knowledge of new Countries, there yet remains an ample Field in the Creation, to which they are utter Strangers, and which all the Methods of Travelling hitherto invented, will never bring them acquainted with. Of this I can give a very particular Instance, in an Accident which lately happened to me. As I was on the 6th of this Instant, walking with my Eyes cast upwards, I fell into a Reflection on the vast Tracts of Air which appeared before me as uninhabited. And wherefore, said I to myself, should all this Space be created? Can it only be for an odd Bird to fly through, as now and then a Man passes a Desert? Or are there also Kingdoms, with their particular Politics and People, of a
Species

Species which we know nothing of, ordained to live in it? —It was in this manner I continued my Thought, when my Feet forsook the Level, and I was insensibly mounted in the Air, till I arrived at a Footing as firm and level as what I had left. But with what Surprize did I find myself among Creatures distinct from us in Shape and Customs! The Inhabitants are of a small Stature, below those which History describes for Piginies; the tallest of them exceed not fourteen or fifteen Inches, and the least hardly three. This Difference proceeds only from their Growth before they are brought to Light; for after we never observe them to grow, unless it please their Parents, who have this uncommon Method of enabling them: They recall them to the Womb, where having been for some time, they receive an Addition to their Bulk, then go back to their Houses, and continue at a Stand as they did before. The Experiment has been often tried with Success, but some have suffered extremely by undergoing it.

There Skins are like the ancient *Britons*, all drawn over with Variety of Figures; the Colour made use of for this End is generally black. I have indeed observed, in some of the Religious and Lawyers of this Country, Red here and there intermingled, though not so commonly of late. They tell me too, they often used to paint with all Colours; and I visited two or three of the old Inhabitants, who were adorned in that Fashion: But this is now disused, since the new Inventions, by which the Use of a black Fountain that belongs to that Country is rendered more useful and serviceable.

The Cloaths in which they go clad are the Skins of Beasts, worn by some plain, by others with Figures wrought upon them. Gold is also made use of by some, to beautify their Apparel; but very seldom Silver, unless as Buckles are by us for fastening the Garments before. I have seen some of them go like Seamen in thin blue Shirts; others like *Indians*, in a party-coloured loose kind of Apparel; and others, who they told me were the Politicians of the Country, go about stark naked.

The Manner of dressing them is this: At first when they come into the World they have a Suit given them, which if it do not fit exactly, is not, as with us, fitted up again, but the Children are in a cruel Manner cut and squeezed to bring them to its Proportion. Yet this they seem not much to regard, provided their principal Parts are not affected. When the Dress is thus settled on them, they are clad for Life, it being

being seldom their Custom to alter it, or put it off : In short, they live in it Night and Day, and wear it to Rags rather than part with it, being sure of the same Torture, and a greater Danger, if they should be dressed a second Time. I have farther taken Notice, that they delight to go open-breasted, most of them shewing their Bosoms speckled. Some Lawyers indeed wear them quite white, perhaps for Distinction-sake, or to be known at a Distance; but the finest Shew is among the Beaux and Ladies, who mightily affect something of Gold both before and behind them. Food I never saw them eat, they being a People, who, as I have observed, live in Air. Their Houses are all single and high, having no back Rooms, but frequently seven or eight Stories, which are all separate Houses above one another. They have one Gate to their City, and generally no Doors to their Houses; tho' I have sometimes seen them have particular Doors, and even made of Glass, where the Inhabitants have been observed to stand many Days, that their fine Apparel may be seen through them. If at any time they lie down, which they do when they come from their Habitations, as if coming abroad were their greatest Fatigue, they will lie together in Heaps without receiving Hurt; tho' the soundest Sleep they get is when they can have Dust enough to cover them over. The Females amongst them are but few, nothing being there produced by a Marriage of Sexes. The Males are of a different Strength or Endowment of Parts, some having Knowledge in an extreme Degree, and others none at all, yet at the same time they are mighty willing to instruct others. Their Names (for as many as would discover them to me) I observed to be the very same as ours are upon Earth; I met a few who made theirs a Mystery, but why I am yet to learn. They are so communicative, that they will tell all the Knowledge they boast, if a Stranger apply himself to their Conversation : And this may be worth his while, if he considers that all Languages, Arts, and Sciences, are professed amongst them. I think I may say it without Vanity, that I knew a certain Talisman, with proper Figures and Characters inscribed, whereby their greatest People may be charmed, brought to reside with a Man, and serve him like a Familiar in the Conduct of Life.

There is no such thing as fighting amongst them; but their Controversies are determined by Words, wherein they seldom own themselves conquered, yet proceed no farther than two or three Replies : Perhaps indeed two others take up their Neighbour's Quarrel, but then they desist too after the same manner; sometimes, however, Blows have ensued
upon

upon their Account, tho' not amongst them: In such a Case they have descended to inspire Mankind with their Sentiments, and chosen Champions from among us, in order to decide it.

The Time of their Life is very different; some die as soon as born, and others in their Youth; some get a new Lease, by their entering into the Womb again; and if any weather out to a hundred Years, they generally live on to an extreme Age: After which it is remarkable, that instead of growing weaker as we do by Time, they increase in Strength, and become at last so confirmed in Health, that it is the Opinion of their Country, they never can perish while the World remains.

The Sicknesses which may take them off, besides what happens from their natural Weakness of Body, are of different Sorts. One is Over-moisture, which affecting their Mansions, makes them lose their Complexions, become deformed, and rot away insensibly: This is often obviated by their not keeping too much within Doors. Another is the Worms, which prey upon their Bowels. If they be maimed by Accidents, they become, like us, so far useless, and that will some time or other be the Occasion of their Ruin. However, they perish by these means only in appearance, and like Spirits who vanish in one Place, to be seen in another. But as Men die of Passions, so Disesteem is what the most nearly touches them; then they withdraw into Holes and Corners, and consume away in Darkness. Or if they are kept alive a few Days by the Force of Spices, it is but a short Reprieve from their perishing to Eternity without any Honour; but that instead of a Burial, a small Pyre of Paste should be erected over them, while they, like the ancient *Romans*, are reduced to Ashes.

LESSON

LESSON VII.

The Picture of a GOOD MAN.

HE makes the Interest of Mankind, in a manner, his own; and has a tender and affectionate Concern for their Welfare. He cannot think himself happy, whatever his Possessions and Enjoyments are, while he sees others miserable. His Wealth and Affluence delight him chiefly as the Poor and Indigent are the better for it; and the greatest Charm of Prosperity is the Opportunity it affords of relieving his Fellow-Creatures, and of being more extensively useful. He thinks he has discharged but the *least Part* of his Duty, when he has done *strict Justice* to all; and therefore the communicating Advice and Comfort, Assistance and Support, according to the various Exigencies of those with whom he converses, is his constant Endeavour, and most pleasing Entertainment. In the strong and elegant Language of *Job*, *He is Eyes to the Blind, and Feet to the Lame; he delivereth the Poor that cry, and the Fatherless, and him that hath none to help him; the Blessing of him that is ready to perish cometh upon him, and he causeth the Widow's Heart to sing for Joy.* And that he may practise the more large and generous Charity, he retrenches useless Pomp and Extravagance; and, by a regular and prudent Management, constantly provides for the Relief of the Necessitous; esteeming this a much more sublime and noble Gratification, than the idle Amusements and Gallantries of a vain and luxurious Age.

He not only takes all Occasions that present themselves of doing Good, but seeks for Opportunities to be useful; it is Part of the stated Employment and Business of his Life. He contrives and studies which way he may be most serviceable to his Fellow-Creatures, and what that particular Talent is with which he is entrusted for the Good of Mankind. If it be *Power*, he protects and encourages Virtue by his Authority and Influence, is the Patron of Liberty, and vindicates the Cause of oppressed Innocence. If *Riches*, he is rich in good Works, ready to distribute, willing to communicate. If *Knowledge*, he counts it his highest Pleasure to instruct the Ignorant, and administer proper Direction and Comfort in perplexing and difficult Circumstances; and to defend the Cause of Religion, and represent it in a just and amiable Light. And to nothing

of this does he want to be *solicited* ; but his generous Heart is always ready, and strongly disposed, for beneficent Designs and Actions. You cannot lay a greater Obligation upon him, than by proposing Ways in which he may be useful, or enlarge his Sphere of Usefulness ; for this is the Point in which all his Views, all his Satisfaction, center.

Add to this, that he is inclined to abate of his Right, when insisting too strictly upon it may have the Appearance of Harshness and Severity ; and has such a strong Sense of Benevolence, such an exalted Spirit of Humanity and Compassion, that no Considerations of *private Interest*, no Difference of *Nation* or *religious Profession*, can restrain ; and which the *greatest Injuries* cannot bear down and extinguish. He aims that his Goodness may be as diffusive as possible, and as much like that of the universal Parent, the eternal Fountain of Good, who supports, enlivens, and recreates the whole Creation ; and therefore, as he is generous in all his Designs, he is very fearful of disobliging any either by Word or Action ; and endeavours in his whole Conduct to be agreeable as well as useful to all : Being candid in his Censures, practising to his Inferiors the most endearing Condescension, and carefully avoiding Moroseness, and every thing that has the Appearance of Insolence or Contempt. Finally, to conclude the Sketch of this most beautiful and honourable Character, *the good Man* is unwearied in his Endeavours to promote the Happiness of others ; the Ardor of his Benevolence is not cooled, though he meets with ungrateful Returns ; the Trouble and Expence of the Service do not discourage him ; nay, he is ready to give up all private Considerations for the sake of the public Welfare, and even to sacrifice Life itself when the Good of the World requires it.

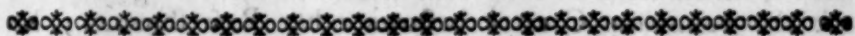
LESSON VIII.

The Duty of endeavouring to obtain WISDOM, and the Use and Importance of it.

WISDOM is of itself delectable and satisfactory. It is like Light, pleasant to behold, casting a sprightly Lustre and diffusing a benign Influence all about; displaying Objects in their due Shapes, Postures, Magnitudes, and Colours; dispelling the Darkness of Ignorance, scattering the Mists of Doubt, and driving away the Spectres of delusive Fancy; discovering Obstacles, securing the Progress, and making the Passages of Life clear, open, and pleasant. Wisdom begets in us a Hope of Success in our Actions, and is usually attended therewith. Now what is more delicious than Hope? What more satisfactory than Success? And he that aims at a good End, and knows he uses proper Means to attain it, why should he despair of Success? since Effects naturally follow their Causes, and the Divine Providence is wont to afford its Concurrence to such Proceedings? Wisdom makes all the Troubles, Griefs, and Pains incident to Life, whether casual Adversities, or natural Afflictions, easy and supportable, by rightly valuing the Importance, and moderating the Influences of them. It suffers not busy Fancy to alter the Nature, amplify the Degree, or extend the Duration of them, by representing them more sad, heavy, and remediless than they truly are. Besides that it confers a Felicity and Dexterity in Action, which is a very pleasant and commodious Quality. To do Things with Difficulty and Struggling disheartens a Man, quells his Courage, blunts the Edge of his Resolution, renders him sluggish and averse from Business, tho' apprehended never so necessary and of great Moment. These Obstructions Wisdom removes, facilitating Operations, by directing the Intention to Ends possible and attainable, by suggesting fit Means and Instruments to work by, by contriving right Methods and Courses of Process; the Mind by it being stored with Variety of good Principles, sure Rules, and happy Expedients, reposed in the Memory, and ready upon all Occasions to be produced and employed in Practice. Wisdom begets a sound, healthful, and harmonious Complexion of the Soul, disposing us with Judgment to distinguish, and with

Pleasure to relish, savoury and wholesome Things, but not to nauseate and reject such as are ungrateful and noxious to us ; whence to the Soul proceeds all that Comfort, Joy, and Vigour, which result to the Body from a good Constitution and perfect Health. Wisdom acquaints us with ourselves, our own Temper and Constitution, our Propensions and Passions, our Habitudes and Capacities ; a Thing not only of mighty Advantage, but of infinite Pleasure and Content to us. No Man in the World less knows a Fool than himself. He hath wonderful Conceits of his own Qualities and Faculties ; he affects Commendations incompetent to him, and soars at Employments surpassing his Ability to manage. No Comedy can represent a Mistake more odd and ridiculous than his ; for what he wanders, stares, and hunts after, but never can find or discern, is himself. Wisdom procures and preserves a constant Favour and fair Respect of Men, purchases a good Name, and upholds Reputation in the World ; which Things are naturally desirable, and commodious in Life. The composed Frame of Mind, uniform and comely Demeanour, compliant and inoffensive Conversation, fair and punctual Dealing, considerate Motions and dextrous Addresses of wise Men, naturally beget Esteem and Affection in those that observe them : Whereas Folly is freakish and humourous, impertinent and obstreperous, inconstant and inconsistent, peevish and exceptionous, and consequently troublesome to Society, and productive of Aversion and Disrespect. Wisdom instructs us to examine, compare, and rightly to value, the Objects that court our Affections, and challenge our Care ; and thereby regulates our Passions, and moderates our Endeavours, which begets a pleasant Serenity and peaceful Tranquillity of Mind. For when, being deluded with false Shews, and relying upon ill-grounded Presumptions, we highly esteem and eagerly pursue Things of little Worth in themselves, as we prostitute our Affections, mis-spend our Time, and lose our Labour ; so the Event not answering our Expectation, our Minds thereby are confounded, disturbed, and distempered. Wisdom discovers our Relations, Duties, and Concernments, in respect of others with whom we converse ; distinguishes the Circumstances, limits the Measures, determines the Modes, appoints the fit Season of Action ; thus preserving *Decorum* and *Order*, the Parents of Peace ; and preventing *Confusion*, the Mother of Iniquity, Strife, and Disquiet. In fine, Wisdom acquaints us with the Nature and Reason of true Religion, and persuades us to the Practice of it ; teaches us wherein it consists, and
what

what it requires, the Mistake of which produceth daily so many Mischiefs in the World. It shews that it consisteth not in fair Professions, but in real Practice; not in a pertinacious Adherence to any Sect or Party, but in a sincere Love of Goodness, and Dislike of Naughtiness, where-ever discovering itself; not in harsh Censuring and virulently Inveighing against others, but in carefully Amending our own Ways; not in a vain Ostentation of outward Performances, but in an inward Goodness of Mind, exerting itself in Works of true Devotion and Charity; not in a nice Orthodoxy, or politic Subjection of our Judgements to the peremptory Dictates of Men, but in a sincere Love of Truth, in a hearty Approbation of Compliance and Doctrines fundamentally good, and necessary to be believed.



LESSON IX.

A View of the different Climes and Regions of the Earth.

HOW oblique and faintly looks the Sun on yonder Climates, far removed from him! How tedious are the Winters there! How deep the Horrors of the Night, and how uncomfortable even the Light of the Day! The freezing Winds employ their fiercest Breath, yet are not spent with blowing. The Sea, which elsewhere is scarce confined within its Limits, lies here immured in Walls of Crystal. The Snow covers the Hills, and almost fills the lowest Vallies. How wide and deep it lies, incumbent o'er the Plains, hiding the sluggish Rivers, the Shrubs and Trees, the Dens of Beasts, and Mansions of distress'd and feeble Men!—See! where they lie confined, hardly secure against the raging Cold, or the Attacks of the wild Beasts, now Masters of the wasted Field, and forced by Hunger out of the naked Woods.—Yet not disheartened (such is the Force of human Breasts); but thus provided for by Art and Prudence, the kind compensating Gifts of Heaven, Men and their Herds may wait for a Release. For at length the Sun, approaching, melts the Snow, sets longing Men at Liberty, and affords them Means and Time to make Provision against the next Return of Cold. It breaks the icy Fetters of the Main, where the vast Sea-Monsters pierce thro' floating Islands,

with Arms which can withstand the crystal Rock: whilst others, who of themselves seem great as Islands, are by their Bulk alone arm'd against all but Man, whose Superiority over Creatures of such stupendous Size and Force should make him mindful of his Privilege of Reason, and force him humbly to adore the great Compoler of these wondrous Frames, and Author of his own superior Wisdom.

But leaving these dull Climates, so little favoured by the Sun, for those happier Regions on which he looks most kindly, making perpetual Summer; how great an Alteration do we find! His purer Light confounds weak-sighted Mortals; pierced by his scorching Beams, scarce can they tread the glowing Ground. The Air they breathe cannot enough abate the Fire which burns within their panting Breasts. Their Bodies melt; overcome and fainting, they seek the Shade, and wait the cool Refreshments of the Night. Yet oft the bounteous Creator bestows other Refreshments; he casts a Veil of Clouds before them, and raises gentle Gales; favoured by which, the Men and Beasts pursue their Labours; and Plants, refreshed by Dews and Showers, can gladly bear the warmest Sun-beams.

And here the varying Scene opens to new Wonders. We see a Country rich with Gems, but richer with the fragrant Spices it affords. How gravely move the largest of Land-Creatures on the Banks of this fair River! How ponderous are their Arms, and vast their Strength, with Courage and a Sense superior to the other Beasts! yet are they tamed by Mankind, and brought even to fight their Battles, rather as Allies and Confederates than as Slaves. But let us turn our Eyes towards these smaller and more curious Objects, the numerous and devouring Insects on the Trees in these wide Plains: How shining, strong, and lasting are the subtle Threads spun from their artful Mouths! Who beside the All-wise has taught them to compose the beautiful soft Shells, in which, recluse and buried, yet still alive, they undergo such a surprising Change, when not destroyed by Men, who cloath and adorn themselves with the Labours and Lives of those weak Creatures, and are proud of wearing such inglorious Spoils? How sumptuously-apparelled, gay, and splendid, are all the various Insects which feed on the other Plants of this warm Region! How beautiful the Plants themselves in all their various Growths, from the triumphant Palm down to the humble Moss!

Now may we see that happy Country where precious Gems and Balsams flow from Trees, and Nature yields her

most

most delicious Fruits. How tame and tractable, how patient of Labour and of Thirst, are those large Creatures, who, lifting up their lofty Heads, go led and loaden thro' those dry and barren Places ! Their Shape and Temper shew them framed by Nature to submit to Man, and fitted for his Service ; who from hence ought to be more sensible of his Wants, and of the divine Bounty thus supplying them.

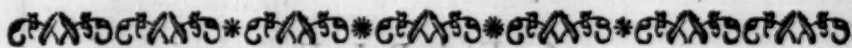
But see ! not far from us that fertilest of Lands, watered and fed by a friendly generous Stream, which, ere it enters the Sea, divides itself into many Branches, to dispense more equally the rich and nitrous Manure it bestows so kindly and in due Time on the adjacent Plains.—Fair Image of that fruitful and exuberant Nature, who with a Flood of Bounty blesses all Things, and, Parent-like, out of her many Breasts sends the nutritious Draught in various Streams to her rejoicing Offspring !—Innumerable are the dubious Forms and unknown Species which drink the slimy Current ; whether they are such as, leaving the scorched Deserts, satiate here their ardent Thirst, and, promiscuously engendering, beget a monstrous Race ; or whether, as it is said, by the Sun's genial Heat active on the fermenting Ooze, new Forms are generated, and issue from the River's fertile Bed.—See there the noted Tyrant of the Flood, and Terror of its Borders ! when, suddenly displaying his horrid Form, the amphibious Ravager invades the Land, quitting his watry Den, and from the Deep emerging, with hideous Rush sweeps o'er the trembling Plain. The Natives from afar behold with Wonder the enormous Bulk, sprung from so small an Egg. With Horror they relate the Monster's Nature, cruel and deceitful ; how he, with dire Hypocrisy and false Tears, beguiles the Simple-hearted ; and, inspiring Tenderness and kind Compassion, kills with pious Fraud.—Sad Emblem of that spiritual Plague, dire Superstition ! Native of this Soil, where first Religion grew unfociable, and among different Worshippers bred mutual Hatred and Abhorrence of each other's Temples ! The Infection spreads ; and Nations now, profane one to another, war fiercer, and in Religion's Cause forget Humanity ; whilst savage Zeal, with meek and pious Semblance, works dreadful Massacre, and for Heaven's Sake (horrid Pretence !) makes desolate the Earth.

Here let us leave these Monsters (glad if we could here confine them), and, detesting the dire prolific Soil, fly to the vast Deserts of these Parts. All ghastly and hideous as they appear, they want not their peculiar Beauties. The Wilderness pleases, we seem to live alone with Nature: We view

her in her inmost Recesses, and contemplate her with more Delight in these original Wilds than in the artificial Labyrinths and feigned Wilderesses of the Palace. The Objects of the Place, the scaly Serpents, the savage Beasts, and poisonous Insects, how terrible soever, or how contrary to human Nature, are beauteous in themselves, and fit to raise our Thoughts in Admiration of that divine Wisdom, so far superior to our short Views. Unable to declare the Use and Service of all Things in this Universe, we are yet assured of the Perfection of all, and of the Justice of that Oeconomy to which all Things are subservient; and in respect of which, Things seemingly deformed are amiable, Disorder becomes regular, Corruption wholesome, and Poisons (such as these we have seen) prove healing and beneficial.

But behold! thro' a vast Tract of Sky before us the mighty *Atlas* rears his lofty Head, covered with Snow above the Clouds. Beneath the Mountain's Foot, the rocky Country rises into Hills, a proper Basis of the ponderous Mass above; where huge embodied Rocks lie piled on one another, and seem to prop the high Arch of Heaven.—See! with what trembling Steps poor Mankind tread the narrow Brink of the deep Precipices! From whence with giddy Horror they look down, mistrusting even the Ground which bears them, whilst they hear the hollow Sound of Torrents underneath, and see the Ruin of the impending Rock, with falling Trees which hang with their Roots upwards, and seem to draw more Ruin after them. Here thoughtless Men, seized with the Newness of such Objects, become thoughtful, and willingly contemplate the incessant Changes of this Earth's Surface. They see, as in one Instant, the Revolutions of past Ages, the fleeting Forms of Things, and the Decay even of this our Globe; whose Youth and first Formation they consider, whilst the apparent Soil and irreparable Breaches of the wasted Mountain shew them the World itself only as a noble Ruin, and make them think of its approaching Period—But here, mid-way the Mountain, a spacious Border of thick Wood harbours our wearied Travellers, who now are come among the ever-green and lofty Pines, the Firs and noble Cedars, whose towering Heads seem endless in the Sky, the rest of the Trees appearing only Shrubs beside them. And here a different Horror seizes our sheltered Travellers, when they see the Day diminished by the deep Shades of the vast Wood, which, closing thick above, spreads Darkness and eternal Night below. The faint and gloomy Light looks horrid as the Shade itself; and the profound

found Stillness of these Places imposes Silence upon Men, struck with the hoarse Echoings of every Sound within the spacious Caverns of the Wood. Here Space astonishes; Silence itself seems pregnant, whilst an unknown Force works on the Mind, and dubious Objects move the wakeful Sense. Mysterious Voices are either heard or fancied, and various Forms of Deity seem to present themselves, and appear more manifest in these sacred Sylvan Scenes; such as of old gave rise to Temples, and favoured the Religion of the ancient World. Even we ourselves, who in plain Characters may read Divinity from so many bright Parts of the Earth, chuse rather these obscurer Places to spell out that mysterious Being, which to our weak Eyes appears at best under a Veil of Cloud.



LESSON X.

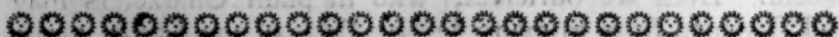
On HAPPINESS.

O Happiness! our Being's End and Aim!
 Good, Pleasure, Ease, Content! whate'er thy Name:
 That Something, which still prompts th' eternal Sigh;
 For which we bear to live, nor fear to die:
 Which still so near us, yet beyond us lies;
 O'erlook'd, seen double, by the Fool—and Wise.
 Plant of Celestial Seed! if dropt below,
 Say in what mortal Soil thou deign'st to grow?
 Fair-opening to some Court's propitious Shrine?
 Or deep with Di'monds in the flaming Mine?
 Twin'd with the Wreaths *Parnassian* Laurels yield?
 Or reap in Iron Harvests of the Field?—

Ask of the Learn'd the Way, the Learn'd are blind:
 This bids to serve, and That to shun Mankind.
 Some place the Bliss in Action, some in Ease;
 Those call it Pleasure, and Contentment These.—
 Take Nature's Path, and mad Opinions leave;
 All States can reach it, and all Heads conceive:
 Obvious her Goods, in no Extreme they dwell,
 There needs but thinking right, and meaning well;
 And mourn our various Portions as we please,
 Equal is *common Sense*, and *common Ease*.—

ORDER

ORDER is Heaven's first Law, and this confess,
 Some are, and must be, greater than the rest,
 More rich, more wise; but who infers from hence,
 That such are *happier*, shocks all common Sense.—
 Know, all the Good that Individuals find,
 Or God and Nature meant to mere Mankind;
 Reason's whole Pleasures, all the Joys of Sense,
 Lie in three Words, *Health, Peace, and Competence.*



LESSON XI.

The JUGGLER.

A FABLE.

A JUGGLER long through all the Town
 Had rais'd his Fortune and Renown:
 You'd think (so far his Art descends)
 The Devil at his Finger's Ends.
 VICE heard his Fame, she read his Bill;
 Convinc'd of his inferior Skill,
 She fought his Booth, and from the Crowd
 Defy'd the Man of Art aloud.

Is this then he so fam'd for Slight?
 Can this slow Bungler cheat your Sight?
 Dares he with me dispute the Prize?
 I leave it to impartial Eyes.
 Provok'd, the Juggler cry'd, 'Tis done:
 In Science I submit to none.
 Thus said, the Cups and Balls he play'd
 By turns; this here, that there convey'd:
 The Cards, obedient to his Words,
 Are by a Fillip turn'd to Birds;
 His little Boxes change the Grain,
 Trick after Trick deludes the Train.
 He shakes his Bag, he shows all fair,
 His Fingers spread, and nothing there;
 Then bids it rain with Show'rs of Gold,
 And now his Iv'ry Eggs are told;
 But when from thence the Hen he draws,
 Amaz'd Spectators him applause.

VICE

VICE now slept forth, and took the Place,
 With all the Forms of his Grimace.
 This magic Looking-glass, she cries,
 There, hand it round, will charm your Eyes.
 Each eager Eye the Sight desir'd,
 And every Man himself admir'd.
 Next, to the Senator addressing,
 See this Bank-note; observe the Blessing.
 Breathe on the Bill.—Heigh, pass—'tis gone!
 Upon his Lips a Padlock shone.
 A second Puff the Magic broke,
 The Padlock vanish'd, and he spoke.
 Twelve Bottles rang'd upon the Board,
 All full, with heady Liquor stor'd,
 By clean Conveyance disappear,
 And now two bloody Swords are there.
 A Purse she to a Thief expos'd:
 At once his ready Fingers clos'd;
 He opes his Fist, the Treasure's fled,
 He sees a Halter in its Stead.
 She bids Ambition hold a Wand,
 He grasps a Hatchet in his Hand.
 A Box of Charity she shows;
 Blow here, and a Churchwarden blows;
 'Tis vanish'd with Conveyance neat,
 And on the Table smokes a Treat.
 She shakes the Dice, the Board she knocks,
 And from all Pockets fills her Box.
 She next a meagre Rake address'd;
 This Picture see; her Shape, her Breast!
 What Youth, and what inviting Eyes!
 Hold her and have her.—With Surprise,
 His Hand expos'd a Box of Pills;
 And a loud Laugh proclaim'd his Ills.
 A Counter, in a Miser's Hand,
 Grew twenty Guineas at Command;
 She bids his Heir the Sum retain,
 And 'tis a Counter now again.
 A Guinea with her Touch you see
 Take ev'ry Shape but Charity;
 And not one Thing, you saw or drew,
 But chang'd from what was first in View.
 The Juggler now in Grief of Heart,
 With this Submission, own'd her Art.

“Can

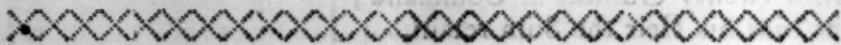
"Can I such matchless Slight withstand?
 "How Practice hath improv'd your Hand!
 "But now and then I cheat the Throng;
 "You ev'ry Day, and all Day long."



LESSON XII.

ON MUSIC.

Descend, ye Nine! descend and sing;
 The breathing Instruments inspire,
 Wake into Voice each silent String,
 And sweep the sounding Lyre!
 In a sadly-pleasing Strain
 Let the warbling Lute complain:
 Let the loud Trumpet sound,
 Till the Roofs all around
 The shrill Echoes rebound:
 While in more lengthen'd Notes and slow,
 The deep, majestic, solemn Organs blow.
 Hark! the Numbers soft and clear,
 Gently steal upon the Ear;
 Now louder, and yet louder rise,
 And fill with spreading Sounds the Skies;
 Exulting in Triumph now swell the bold Notes,
 In broken Air, trembling, the wild Music floats;
 Till by Degrees, remote and small,
 The Strains decay,
 And melt away,
 In a dying, dying Fall.



LESSON XIII.

The RURAL LIFE.

OH knew he but his Happiness, of Men
 The happiest he, who, far from public Rage,

Deep

Deep in the Vale, with a choice Few retir'd,
Drinks the pure Pleasures of a Rural Life!
What tho' the Dome be wanting, whose proud Gate
Each Morning vomits out the sneaking Crowd
Of Flatterers false, and in their Turns abus'd?
(Vile Intercourse!) What tho' the glittering Robe
Of every Hue reflected Light can give,
Or floating loose, or stiff with mazy Gold,
(The Pride and Gaze of Fools!) oppresses him not?
What tho', from utmost Land and Sea purvey'd,
For him each rarer tributary Life
Bleeds not, and his insatiate Table heaps
With Luxury and Death? What tho' his Bowl
Flames not with costly Juice; nor, sunk in Beds
Oft of gay Care, he tosses out the Night,
Or melts the thoughtless Hours in idle State?
What tho' he knows not those fantastic Joys
That still amuse the Wanton, still deceive;
A Face of Pleasure, but a Heart of Pain;
Their hollow Moments undelighted all?
Sure Peace is his; a solid Life, estrang'd
To Disappointment, and fallacious Hope:
Rich in Content, in Nature's Bounty rich,
In Herbs and Fruits; whatever greens the Spring,
When Heaven descends in Show'rs; or bends the Bough,
When Summer reddens, and when Autumn beams;
Or in the Wintry Glebe whatever lies
Conceal'd, and fattens with the richest Sap:
These are not wanting; nor the milky Drove,
Luxuriant, spread o'er all the lowing Vale:
Nor bleating Mountains; nor the Chide of Streams,
And Hum of Bees inviting Sleep sincere
Into the guiltless Breast, beneath the Shade,
Or thrown at large amid the fragrant Hay:
Nor aught beside of Prospect, Grove, or Song,
Dim Grottos, gleaming Lakes, and Fountains clear.
Here too dwells simple Truth; plain Innocence;
Unfully'd Beauty; sound unbroken Youth,
Patient of Labour, with a Little pleas'd;
Health ever-blooming; unambitious Toil;
Calm Contemplation, and Poetic Ease.

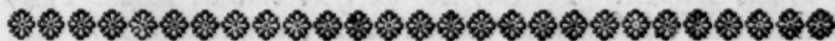
LESSON XIV.

The MORNING HYMN of ADAM and EVE.

THESE are thy glorious Works, Parent of Good !
 Almighty ! Thine this universal Frame,
 Thus wond'rous fair ; Thyself how wond'rous then !
 Unspeakable ! who sitt'st above these Heav'ns,
 To us invifible, or dimly feen
 In thefe thy loweft Works : yet thefe declare
 Thy Goodnefs beyond Thought, and Pow'r divine.
 Speak ye who beft can tell, ye Sons of Light !
 Angels ! for ye behold Him, and with Songs,
 And choral Symphonies, Day without Night,
 Circle His Throne, rejoicing ; ye in Heaven :
 On Earth join all ye Creatures to extol
 Him firft, Him laft, Him midft, and without End.
 Faireft of Stars ! laft in the Train of Night,
 If better thou belong not to the Dawn,
 Sure Pledge of Day, that crown'ft the fmiling Morn
 With thy bright Circlet, praife Him in thy Sphere
 While Day arifes, that fweet Hour of Prime.
 Thou Sun, of this great World both Eye and Soul,
 Acknowledge him thy Greater ; found His Praife
 In thy eternal Courfe, both when thou climb'ft,
 And when high Noon haft gain'd, and when thou fall'ft.
 Moon ! that now meet'ft the orient Sun, now fly'ft
 With the fix'd Stars, fix'd in their Orb that flies ;
 And ye five other wand'ring Fires ! that move
 In myftic Dance not without Song, refound
 His Praife, who out of Darknefs call'd up Light.
 Air, and ye Elements ! the eldeft Birth
 Of Nature's Womb, that in Quaternion run
 Perpetual Circle multiform ; and mix,
 And nourifh all Things : let your ceafelefs Change
 Vary to our great Maker ftill new Praife.
 Ye Mifts and Exhalations ! that now rife
 From Hill, or ftreaming Lake, dusky, or grey,
 Till the Sun paint your fleecy Skirts with Gold,
 In Honour to the World's great Author rife :
 Whether to deck with Clouds th' uncolour'd Sky,
 Or wet the thirfty Earth with falling Show'rs,

Rifing

Rising, or falling, still advance His Praise.
 His Praise, ye Winds ! that from four Quarters blow,
 Breathe soft, or loud ; and wave your Tops, ye Pines !
 With every Plant, in Sign of Worship, wave.
 Fountains ! and ye that warble as ye flow,
 Melodious Murmurs ! warbling, tune His Praise !
 Join Voices, all ye living Souls ! ye Birds,
 That singing up to Heaven-gate ascend,
 Bear on your Wings, and in your Notes, His Praise !
 Ye that in Waters glide, and ye that walk
 The Earth, and stately tread, or lowly creep !
 Witness if I be silent, Morn or Ev'n,
 To Hill, or Valley, Fountain, or fresh Shade,
 Made vocal by my Song, and taught His Praise,
 Hail, universal Lord ! be bounteous still
 To give us only Good ; and if the Night
 Have gather'd aught of Evil, or conceal'd,
 Disperse it, as now Light dispels the Dark !



S E C T. II. On SPEAKING.

IN these few Lessons which I have selected for the Improvement of your Reading, I have endeavoured as much as was possible to chuse such as contain good and useful Sentiments, and at the same time require many different Manners of Reading, as in the Study and Practice of them we have observed. I now proceed to lay before you some Lessons for your Improvement in Speaking, to which a distinct and proper Manner of Reading is the best Preparative. I thought it best to take the Speeches I would have you make use of from the *Roman History* ; as it is of all other Histories the most entertaining, the most interesting, and the most useful : And I have chosen to select those Speeches from Mr. *Hooke*, as his Style is generally allowed to be more pure and elegant than any other *Roman History* in our Language. To each Speech is prefixed a short Account of the Occasion on which it is made, which will enable you to enter the better into the Sense and Meaning of it, and into the Spirit and Manner in which it ought to be spoke. These short Arguments should always be read to those who are to hear you before you begin to speak.

L E S S O N S



LESSONS for SPEAKING.



LESSON I.

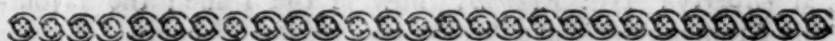
Romulus and Remus being sent by their Grandfather Numitor from Alba at the Head of a Colony; to seek a new Settlement, quarrelled about the Choice of a Spot where they should fix, and build them a City; Romulus chusing Mount Palatine, and Remus Mount Aventine. Remus is said to have lost his Life in this Dispute. The City was therefore built on Mount Palatine, and, in Compliment to its Founder, called Rome. As Romulus had not taken upon him the chief Command of the Colony for any longer Time than while the City was building, he, as soon as the Work was finished, submitted the Form of its future Government to the Choice of the People, and, calling the Citizens together, harangued them in Words to this Effect.

IF all the * Strength of Cities lay in the Height of their Ramparts, or the Depth of their Ditches, we should have great Reason to be in Fear for that which we have now built. Are there in reality any Walls too high to be scaled by a valiant Enemy? And of what Use are Ramparts in intestine Divisions? They may serve for a Defence against sudden Incurfions from abroad; but it is by Courage and Prudence chiefly, that the Invasions of Foreign Enemies are repelled; and by Unanimity, Sobriety, and Justice, that Domestic Seditions are prevented. Cities fortified by the strongest Bulwarks have been often seen to yield to Force from without, or to Tumults from within. An exact mili-

* *Rome*, properly speaking, says Mr. Hooke, was at first but a very sorry Village, whereof even the principal Inhabitants followed their own Ploughs; and until it was rebuilt, after burning of it by the Gauls, did not deserve the Name of a City. Such were the Beginnings of the Capital of the World!

tary

tary Discipline, and a steady Observance of Civil Polity, are the surest Barriers against these Evils. But there is still another Point of great Importance to be considered. The Prosperity of some rising Colonies, and the speedy Ruin of others, have in great measure been owing to their Form of Government. Was there but one manner of ruling States and Cities that could make them happy, the Choice would not be difficult. But I have learnt, that, of the various Forms of Government among the *Greeks* and *Barbarians*, there are three which are highly extolled by those who have experienced them; and yet, that no one of these is in all respects perfect, but each of them has some innate and incurable Defect. Chuse you then in what manner this City shall be governed. Shall it be by one Man? shall it be by a select Number of the wisest among us? or shall the Legislative Power be in the People? As for me, I shall submit to whatever Form of Administration you shall please to establish. As I think myself not unworthy to command, so neither am I unwilling to obey. Your having chosen me to be the Leader of this Colony, and your calling the City after my Name, are Honours sufficient to content me; Honours, of which, living or dead, I can never be deprived.



LESSON II.

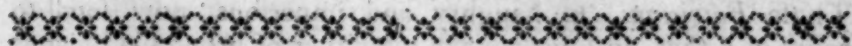
Romulus was chosen King; and Rome was governed by Kings for upwards of 240 Years, till the Expulsion of Tarquin the 2d, which was occasioned by his Son Sextus ravishing Lucretia, the Wife of Collatinus, a noble Roman. Lucretia, upon receiving this Injury, sent for her Husband, who was then in the Camp at Ardea with Tarquin, and for several of his Friends, and, having informed them of the Outrage she had received, and engaged them to revenge it, stabb'd herself to the Heart, and dy'd before them. The Romans had long groan'd under the Tyranny and Cruelties of the Tarquins, and were therefore glad to lay hold on so flagrant and outrageous an Insult, to shake off their Yoke. The famous Junius Brutus, who for some Reasons had mask'd himself, and concealed great Talents under the Appearance of Idiotism, suddenly threw off his Disguise; and going near to the dying Lady, drew the Poniard out of her Bosom, and

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showing it all bloody to the Assembly, to their great Astonishment thus addressed them.

YES, noble Lady, I swear by this Blood, which was once so pure, and which nothing but Royal Villainy could have polluted, that I will pursue *Lucius Tarquinius* the Proud, his wicked Wife, and their Children, with Fire and Sword; nor will I ever suffer any of that Family, or of any other whatsoever, to be King in *Rome*: Ye Gods, I call you to witness this my Oath!—There, *Romans*, turn your Eyes to that sad Spectacle—the Daughter of *Lucretius*, *Callatinus's* Wife—she died by her own Hand. See there a noble Lady; whom the Lust of a *Tarquin* reduced to the Necessity of being her own Executioner, to attest her Innocence. Hospitably entertained by her as a Kinsman of her Husband's, *Sextus*, the perfidious Guest, became her brutal Ravisher. The chaste, the generous *Lucretia* could not survive the Insult. Glorious Woman! But once only treated as a Slave, she thought Life no longer to be endured. *Lucretia*, a Woman, disdain'd a Life that depended on a Tyrant's Will; and shall We, shall Men, with such an Example before our Eyes, and after five-and-twenty Years of ignominious Servitude, shall We, through a Fear of dying, defer one single Instant to assert our Liberty? No, *Romans*, now is the Time; the favourable Moment we have so long waited for is come. *Tarquin* is not at *Rome*. The *Patricians* are at the Head of the Enterprize. The City is abundantly provided with Men, Arms, and all Things necessary. There is nothing wanting to secure the Success, if our own Courage does not fail us. And shall those Warriors, who have ever been so brave when foreign Enemies were to be subdued, or when Conquests were to be made to gratify the Ambition and Avarice of *Tarquin*, be then only Cowards, when they are to deliver themselves from Slavery? Some of you are perhaps intimidated by the Army which *Tarquin* now commands. The Soldiers, you imagine, will take the Part of their General. Banish so groundless a Fear. The Love of Liberty is natural to all Men. Your Fellow-Citizens in the Camp feel the Weight of Oppression with as quick a Sense as you that are in *Rome*. They will as eagerly seize the Occasion of throwing off the Yoke. But let us grant there may be some among them, who, thro' Baseness of Spirit, or a bad Education, will be disposed to favour the Tyrant. The Number of these can be but small, and we have Means sufficient in our Hands to reduce them to Reason. They have left us Hostages more dear

dear to them than Life. Their Wives, their Children, their Fathers, their Mothers, are here in the City. Courage, Romans, the Gods are for us; those Gods, whose Temples and Altars the impious Tarquin has profaned by Sacrifices and Libations made with polluted Hands, polluted with Blood, and with numberless unexpiated Crimes committed against his Subjects. Ye Gods, who protected our Fore-fathers, ye Genii, who watch for the Preservation and Glory of Rome, do you inspire us with Courage and Unanimity in this glorious Cause, and we will to our last Breath defend your Worship from all Profanation.



L E S S O N III.

After the Expulsion of the Tarquins, Rome was governed by two Consuls, who held their Office during the Space only of a Year, at the Conclusion of which new ones were chosen by the Senate and People. After some time, the People found themselves very much oppressed by the Patricians; who engrossed the whole Power of the State, and by various Ex-tortions, such as lending them Money at exorbitant Interest, and the like, had got Possession of all their Lands, and often seized their Persons, imprisoned, or used them as Slaves (the Laws permitting it in case of the Non-payment of their Debts), in a barbarous manner. Unable to bear this cruel Treatment, a Number of them, at the Instigation of Sicin-nius Bellutus, and another Junius Brutus, took an Oppor-tunity, when the State had great Need of their Assistance, to desert their Generals, and retired to a Hill three Miles from Rome. In this Exigence, a Deputation was sent to them from the Senate, persuading them, with many fair Promises, to return. At the Head of this Deputation were T. Lar-tius, Menenius Agrippa, and M. Valerius, all three in great Esteem; and of whom two had governed the Republic, and commanded her Armies in quality of Dictator. When they were introduced to the Camp of the Mal-contented, and had given an Account of their Commission, Junius Brutus, per-ceiving his Comrades continued in a profound Silence, and that none of them attempted to make himself an Advocate in the Cause, stepped forward, and thus addressed them.

ONE would imagine, Fellow-Soldiers, by this deep Silence, that you are still awed by that servile Fear in which the *Patricians* and your Creditors kept you so long. Every Man consults the Eyes of the rest, to discover whether there be more Resolution in others than he finds in himself; and not one of you has the Courage to speak in public, that which is the constant Subject of your private Conversation. Do you not know that you are free? This Camp, these Arms, do not they convince you that you are no longer under Tyrants? And if you could still doubt it, would not this Step which the Senate has taken be sufficient to satisfy you? Those *Patricians*, so haughty and imperious, now send to court us; they no longer make use either of proud Commands or cruel Threats; they invite us as their Fellow-Citizens to return into our common City; nay, some of our Sovereigns, you see, are so gracious as to come to our very Camp, to offer us a general Pardon. Whence then can proceed this obstinate Silence, after such singular Condescensions? If you doubt the Sincerity of their Promises; if you fear that under the Veil of a few fine Words they conceal your former Chains, why do you not speak? Declare your Thoughts freely. Or, if you dare not open your Mouths, at least hear a *Roman*, who has Courage enough to fear nothing but the not speaking the Truth. [Then turning to *Valerius*,] You invite us to return to *Rome*, but you do not tell us upon what Conditions: Can *Plebeians*, poor, tho' free, think of being united with *Patricians* so rich, and so ambitious? And even though we should agree to the Conditions you have to offer, what Security will the *Patricians* give us for the Performance, those haughty *Patricians*, who make it a Merit among themselves to have deceived the People? You talk to us of nothing but Pardon and Forgiveness, as if we were your Subjects, and Subjects in Rebellion; but that is the Point to be discussed. Is it the People or the Senate who are in Fault? Which of the two Orders was it that first violated those Laws of Society which ought to reign among the Members of the same Republic? This is the Question. In order to judge of this without Prejudice, give me leave barely to relate a certain Number of Facts, for the Truth of which I will appeal to no other but yourself and your Collegue. Our State was founded by Kings, and never was the *Roman* People more free and more happy than under their Government. *Tarquin* himself, the last of those Princes, *Tarquin*, so odious to the Senate and the Nobility, favoured our Interest as much

as he opposed yours. Nevertheless, to revenge your Wrongs, we drove that Prince from *Rome*; we took Arms against a Sovereign who defended himself only with the Prayers he made to us to leave your Interests, and to return to his Obedience. We afterwards cut to pieces the Armies of *Veii* and *Tarquinius*, which endeavoured to restore him to the Throne. The formidable Power of *Porfenna*, the Famine we underwent during a long Siege, the fierce Assaults, the continual Battles, were all these, or, in short, was any thing capable of shaking the Faith which we had given you? Thirty *Latine* Cities united to restore the *Tarquins*. What would you have done then, if we had abandoned you, and joined your Enemies? What Rewards might we not have obtained of *Tarquin*, while the Senate and Nobles would have been the Victims of his Resentment? Who was it that dispersed this dangerous Combination? To whom are you obliged for the Defeat of the *Latines*? Is it not to this People? Is it not to them you owe that very Power which you have since turned against them? What Recompence have we had for the Assistance we gave you? Is the Condition of the *Roman* People one Jot the better? Have you associated them in your Offices and Dignities? Have our poor Citizens found so much as the smallest Relief in their Necessities? On the contrary, have not our bravest Soldiers, oppressed with the Weight of Usury, been groaning in the Chains of their merciless Creditors? What has come of all those vain Promises of abolishing, in time of Peace, the Debts which the Extortions of the Great had forced us to contract? Scarce was the War finished, but you alike forgot our Services and your Oaths. With what Design then do you come hither? Why do you try to reduce this People by the Enchantments of your Words? Are there any Oaths so solemn as to bind your Faith? And, after all, what would you get by an Union brought about by Artifice, kept up with mutual Distrust, and which must end at last in a Civil War? Let us on both Sides avoid such heavy Misfortunes; let us not lose the Happiness of our Separation; suffer us to depart from a Country where we are loaded with Chains like so many Slaves, and where, being reduced to be only Farmers of our own Inheritances, we are forced to cultivate them for the Profit of our Tyrants. So long as we have our Swords in our Hands, we shall be able to open ourselves a Way into more fortunate Climates; and wherever the Gods shall grant us to live in LIBERTY, there shall we find our COUNTRY.

LESSON IV.

By this and frequent Struggles of this Sort, which the People had made before, they at length attained the Establishment of the Tribuneship, which consisted of two Officers annually chosen out of the Order of the Plebeians, with Authority to prevent the Injustices that might be done to the People, and to defend their Interests both publick and private. Rome, by this Establishment, made a great Advance towards a new Change in the Form of her Government. It had passed before from the Monarchic State, to a kind of Aristocracy; for, upon the Expulsion of Tarquin, the whole Authority did really and in fact devolve upon the Senate and the Great: But now, by the Creation of the Tribunes, a Democracy began to take place; and the People, by insensible Degrees, and under different Pretences, got Possession of the much greater Share in the Government. A Famine, which raged at Rome soon after the Establishment of this Office, occasions great Complaints amongst the People; and a large Supply of Corn being procured from Sicily by the Patricians, Coriolanus, a young Senator, who had done great Services to the State as a General, is for taking advantage of the People's Distress, to get the Tribuneship abolished, which he proposes in the Senate. The Tribunes and the People, enraged at this, determine to prosecute Coriolanus, and, after much Altercation, desire to be heard by the Senate in relation to their Charge against him; where Decius, one of the Tribunes, makes the following Speech.

YOU know, Conscript Fathers, that having by our Assistance expelled Tarquin, and abolished the Regal Power, you established in the Republic the Form of Government which is now observed in it, and of which we do not complain. But neither can you be ignorant, that in all the Differences which any poor Plebeians had afterwards with wealthy Patricians, those Plebeians constantly lost their Causes, their Adversaries being their Judges, and all the Tribunals being filled with Patricians only. This Abuse was what made Valerius Poplicola, that wise Consul and excellent Citizen, establish the Law which granted an Appeal to the People from the Decrees of the Senate and the Judgements of the Consuls.

Such

Such is the Law called *Valeria*, which has always been looked upon as the Basis and Foundation of the public Liberty. It is to this Law that we now fly for Redress, if you refuse us the Justice we demand upon a Man, black with the greatest Crime that it is possible to commit in a Republic. It is not a single *Plebeian* complaining, it is the whole Body of the *Roman* People, demanding the Condemnation of a Tyrant, who would have destroyed his Fellow-Citizens by Famine, has violated our Magistracy, and forcibly repulsed our Officers, and the *Ædiles* of the Commonwealth. *Coriolanus* is the Man we accuse of having proposed the Abolition of the Tribuneship, a Magistracy made sacred by the most solemn Oaths. What need is there of a *Senatus-Consultum* to prosecute a Criminal like this? Does not every Man know that those particular Decrees of the Senate are requisite only in unforeseen and extraordinary Affairs, and for which the Laws have as yet made no Provision? But in the present Case, where the Law is so direct, where it expressly devotes to the infernal Gods those that infringe it, is it not to become an Accomplice in the Crime to hesitate in the least? Are you not apprehensive that these affected Delays, this Obstruction you throw in the Way of our Proceedings against this Criminal, by the pretended Necessity of a previous Decree of the Senate, will make the People inclined to believe that *Coriolanus* only spoke the Sentiments of you all?

I know that several among you complain it was merely by Violence that we extorted your Consent for the Abolition of the Debts, and the Establishment of the Tribuneship. I will even suppose that in the high Degree of Power to which you had raised yourself after the Expulsion of *Tarquin*, it was neither convenient nor honourable for you to yield up Part of it in favour of the People; but you have done it, and the whole Senate is bound by the most solemn Oaths never to undo it. After the Establishment of those sacred Laws which render the Persons of your Tribunes inviolable, will you, in Compliance with the first ambitious Man that arises, attempt to revoke what makes the Security and Peace of the State? Certainly you never will; and I dare answer for you, so long as I behold in this Assembly those venerable Magistrates who had so great a Share in the Treaty made upon the *Mons Sacer*. Ought you to suffer a Matter like this to be so much as brought into Deliberation? *Coriolanus* is the first who by his seditious Advice has endeavoured to break those sacred Bonds, which, strengthened by the Laws, unite the several Orders of the State. It is he alone who is for destroying the Tribunitian Power,

the People's *Asylum*, the Bulwark of our Liberty, and the Pledge of our Re-union. In order to force the People's Consent, in order to perpetuate one Crime, he attempts another much greater. He dares even in a holy Place, and in the midst of the Senate, propose to let the People die of Hunger. Cruel and unthinking Man at the same time! Did he not consider, that this People whom he meant to exterminate with so much Inhumanity, and who are more numerous and powerful than he could wish, being reduced to Despair, would have broken into the Houses, forced open those Granaries and those Cellars which conceal so much Wealth, and would rather have fallen under the Power of the *Patricians*, or have totally rooted out that whole Order? Could he imagine that an enraged Populace would in such a Case have hearkened to any Law but what was dictated by Necessity and Resentment?

For, that you may not be unacquainted with the Truth, we would not have perished by a Famine brought upon us by our Enemies: but, having called to witness the Gods, Revengers of Injustice, we would have filled *Rome* with Blood and Slaughter. Such had been the fatal Consequences of the Counsels of that perfidious Citizen, if some Senators, who had more Love for their Country, had not hindered them from taking Effect. It is to you, *Conscript Fathers*, that we address our just Complaints. It is to your Aid, and to the Wisdom of your Decrees, that we have recourse, to oblige this public Enemy to appear before the whole *Roman* People, and answer for his pernicious Counsels. It is there, *Coriolanus*, that thou must defend thy former Sentiments, if thou darest so to do, or excuse them as proceeding from Want of Thought. Take my Advice; leave thy haughty and tyrannical Maxims; make thyself less; become like us; nay, put on a Habit of Mourning, so suitable to thy present Fortune. Implore the Pity of thy Fellow-Citizens, and perhaps thou may'st obtain their Favour, and the Forgiveness of thy Faults.

LESSON V.

When Decius left off speaking, all the Senators waited, some with impatient Desire, others with uneasy Apprehensions, to hear how Appius Claudius would declare himself. This Appius was one of those Patricians who had always the most violently opposed the Tribunitial Power. At its first Establishment he foretold the Senate, that they were suffering a Tribunal to be set up, which by degrees would rise against their Authority, and at length destroy it. When it came to his Turn to speak, he delivered himself thus.

YOU know, Conscript Fathers, that I have long opposed, and frequently alone, that too great Easiness with which you grant the People whatever they demand. Perhaps I made myself troublesome when I so frankly laid before you the Misfortunes which I presaged would follow from our Re-union with the Deserters from the Commonwealth. The Event however has but too well justified my Apprehensions. That Share of Power which you yielded up to those seditious Men is now turned against yourselves. The People punish you by means of your own Benefactions; they take Advantage of your Favour to ruin your Authority. 'Tis in vain for you to attempt to hide from yourselves the Danger which the Senate is in; you cannot but see there is a Design to change the Form of our Government: The Tribunes make gradual Advances to the Tyranny. At first the only Demand was the Abolition of the Debts; and this People, who are now so haughty, and who endeavour to make themselves the supreme Judges of the Senators, then thought they stood in Need of a Pardon for the disrespectful Manner in which they sued for that Concession.

Your Easiness gave Occasion to new Pretensions; the People would have their particular Magistrates. You know how earnestly I opposed these Innovations; but, in spite of all I could do, you assented in this Point also; you allowed the People to have Tribunes, that is to say, perpetual Ring-leaders of Sedition. Nay, the People, intoxicated with Fury, would have this new Magistracy consecrated in a particular Manner, such as had never been practised, not even in favour of the Consulship, the first Dignity in the Republic. The Senate consented to every thing, not so much out of Kind-

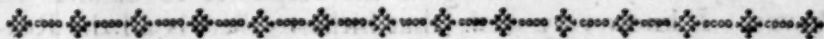
Kindness for the People, as Want of Resolution; the Persons of the Tribunes were declared sacred and inviolable, and a Law made to that Effect. The People required that it should be confirmed by the most solemn Oaths; and that Day, *O Fathers!* you swore upon the Altars the Destruction of yourselves and Children. What has been the Fruit of all these Favours? They have only served to make you contemptible in the Eyes of the People, and to increase the Pride and Insolence of their Tribunes, who have made themselves new Rights and Privileges. These modern Magistrates, who ought to live as mere private Men, take upon them to convene the Assemblies of the People, and without our Privity procure Laws to be enacted by the Voices of a base Rabble.

It is so odious a Tribunal, that they now summon a *Patrician*, a Senator, a Citizen of your Order; in a Word, *Coriolanus*, that great Captain, and withal that good Man, yet more illustrious for his Adherence to the Interests of the Senate than for his Valour. They presume to make it a Crime in a Senator to speak his Opinion, in full Senate, with that Freedom so becoming a *Roman*; and if yourselves had not been his Buckler and Defence, they had assassinated him even in your Presence. The Majesty of the Senate was just going to be violated by this Murder; the Respect due to your Dignity was forgot, and you yourselves were losing both your Empire and your Liberty.

The Resolution and Courage which you shewed upon this last Occasion in some measure awakened these Madmen from their drunken Fit. They seem now to be ashamed of a Crime which they could not compleat; they desist from violent Methods because they have found them unsuccessful, and they seemingly have recourse to Justice and the Rules of Law.

But what is this Justice, immortal Gods! which these Men of Blood would introduce? They endeavour, by Appearances of Submission, to surprise you into a *Senatus-Consultum*, which may give them Power to drag the best Citizen of *Rome* to Punishment. They alledge the *Lex Valeria* as the Rule of your Conduct; but does not every-body know, that this Law, which allows of Appeals to the Assembly of the People, relates only to such poor *Plebeians*, as, being destitute of all other Protection, might be oppressed by the Credit of a strong Cabal? The Text of the Law is plain; it expressly says, that a Citizen condemned by the Consuls shall have Liberty to appeal to the People. *Poplicola*, by this Law, only provided a Refuge for those unhappy Men who had Reason to complain of having been condemned by prejudiced Judges. The Design of the
Law

Law was only to have their Causes heard over again; and when you afterwards consented to the Creation of the Tribunes, neither you, nor even the People themselves, intended any thing more in the Establishment of those new Magistrates, than that this Law might have Protectors, and the Poor be provided with Advocates who might prevent their being oppressed by the Great. What Relation is there between such a Law, and the Case of a Senator, a Man of an Order superior to the People, and who is accountable for his Conduct to none but the Senate? To shew that the *Lex Valeria* relates only to *Plebeians*; for about seventeen Years that it has been made, let *Decius* give me one single Instance of a *Patrician* called in Judgement before the People by that Law, and our Dispute will be at an End. And indeed what Justice would there be in delivering up a Senator to the Fury of the Tribunes, and to suffer the People to be Judges in their own Cause; as if their tumultuous Assemblies, directed by such seditious Magistrates, could be without Prejudice, without Hatred, without Passion? Thus, O Fathers, it is my Advice, that, before you come to any Determination, you maturely consider, that in this Affair your Interests are inseparable from those of *Coriolanus*. As to the rest, I am not for your revoking the Favours you have granted the People, by whatever Means they obtained them; but I cannot forbear exhorting you to refuse boldly for the future whatever they shall endeavour to obtain of you contrary to your own Authority, and the Form of our Government.



LESSON VI.

It appears from these two Speeches of *Decius* and *Appius*, that the Business of *Coriolanus* was only used as a Colour to Affairs of greater Importance. The true Cause of the Dispute and Animosity of the two Parties was this, That the Nobles and *Patricians* pretended a Right of Succession to the Regal Authority, upon the Expulsion of *Tarquin*, and that the Government ought to be purely Aristocratic; whereas the Tribunes, by new Laws, endeavoured to turn it into a Democracy, and to bring the whole Authority into the Hands of the People. *M. Valerius*, an old experienced Senator, and a true Republican, displeased to see those of his own Order constantly af-

fecting a Distinction and Power ever odious in a free State, spoke as follows.

WE are made to fear, that the public Liberty will be in Danger, if we grant so much Power to the People, and allow them to try those of our Order who shall be accused by the Tribunes. I am persuaded, on the contrary, that nothing is more likely to preserve it. The Republic consists of two Orders, *Patricians* and *Plebeians*; the Question is, which of those two Orders may more safely be trusted with the Guardianship of that sacred *Depositum*, our Liberty? I maintain, that it will be more secure in the Hands of the People, who desire only not to be oppressed, than in those of the Nobles, who all have a violent Thirst of Dominion. The Nobles, invested with the prime Magistracies, distinguished by their Birth, their Wealth, and their Honours, will always be powerful enough to hold the People to their Duty; and the People, when they have the Authority of the Laws, being naturally Haters and jealous of all exalted Power, will watch over the Actions of the Great, and, by the Dread of a popular Inquiry and Judgement, keep a Check upon the Ambition of such *Patricians* as might be tempted to aspire to the Tyranny. You abolished the Royalty, *Conscript Fathers*, because the Authority of a single Man grew exorbitant. Not satisfied with dividing the sovereign Power between two annual Magistrates, you gave them a Council of three hundred Senators, to be Inspectors over their Conduct, and Moderators of their Authority. But this Senate, so formidable to the Kings and to the Consuls, has nothing in the Republic to balance its Power. I know very well, that hitherto there is all the Reason in the World to applaud its Moderation: But who can say whether we are not obliged for this to our Fear of Enemies abroad, and to those continual Wars which we have been forced to maintain? Who will be answerable that our Successors, growing more haughty and more potent by a long Peace, shall not make Attempts upon the Liberty of our Country, and that in the Senate there shall not arise some strong Faction, whose Leader will find means to become the Tyrant of his Country, if there be not at the same time some other Power, out of the Senate, to withstand such ambitious Enterprizes, by impeaching the Authors and Abettors of them before the People?

Perhaps the Question will be asked me, Whether the same Inconveniency is not to be apprehended from the People, and whether it is possible to make sufficient Provision, that there shall

shall not at some time arise among the Plebeians a Head of a Party, who will abuse his Influence over the Minds of the Multitude, and, under the old Pretence of defending the People's Interests, in the end invade both their Liberty and that of the Senate? But you well know, that, upon the least Danger which the Republic may seem to be in on that Side; our Consuls have Power to name a Dictator, whom they will never chuse but from among your own Body; that this supreme Magistrate, absolute Master of the Lives of his Fellow-Citizens, is able by his sole Authority to dissipate a popular Faction; and the Wisdom of our Laws has allowed him that formidable Power but for six Months, for fear he should abuse it, and employ in the Establishment of his own Tyranny an Authority intrusted with him only to destroy that of any other ambitious Men.

Thus with a mutual Inspection the Senate will be watchful over the Behaviour of the Consuls, the People over that of the Senate; and the Dictator, when the State of Affairs requires the Intervention of such a Magistrate, will curb the Ambition of all. The more Eyes there are upon the Conduct of every Branch of our Legislature, the more secure will be our Liberty, and the more perfect our Constitution.

The Issue of this Debate was, that Coriolanus was given up to be tried by the Tribunes of the People; by whom he was condemned to perpetual Banishment.



LESSON VI.

In all the Struggles between the Patricians and the People, the latter generally carried their Points; insomuch that in Process of Time the greatest Part of the Power of the Commonwealth of Rome came into the Hands of the Tribunes. They called Assemblies of the People when they pleased, and in those Assemblies frequently annulled the Decrees of the Senate. Nothing could be concluded without their Consent, which they expressed by subscribing the Letter T at the Bottom of the Decree. They had it in their Power to prevent the Execution of any Decree, without giving any Reason for it, and merely by subscribing VETO. They sometimes called before the People even the Consuls and Dictators to account for their Conduct. About forty Years after the Affair of Coriolanus, during

during the Consulship of Quinctius Capitolinus and Agrippa Furius, the same Dissentions are again revived, inasmuch that tho' the *Æqui* and *Volsci*, taking advantage of these Disorders, ravage the Country to the very Gates of Rome, the Tribunes forbade the necessary Levies of Troops to oppose them. Quinctius however, a Senator of great Reputation, well beloved, and now in his fourth Consulate, gets the better of this Opposition, by the following Speech.

THOUGH I am not conscious, O Romans, of any Crime by me committed, it is yet with the utmost Shame and Confusion that I appear in your Assembly. You have seen it—Posterity will know it—In the fourth Consulship of *Titus Quinctius*, the *Æqui* and *Volsci* (scarce a Match for the *Hernici* alone) came in Arms to the very Gates of Rome, and went away again unchastised! The Course of our Manners indeed, and the State of our Affairs, have long been such, that I had no Reason to preface much Good; but could I have imagined that so great an Ignominy would have befallen me this Year, I would by Death or Banishment (if all other Means had failed) have avoided the Station I am now in. What! might Rome then have been taken, if those Men who were at our Gates had not wanted Courage for the Attempt?—Rome taken, while I was Consul!—Of Honours I had sufficient—of Life enough—more than enough—I should have died in my third Consulate. But who are they that our dastardly Enemies thus despise? the Consuls? or you, Romans? If we are in Fault, depose us, punish us yet more severely. If you are to blame—may neither Gods nor Men punish your Faults! only may you repent. No, Romans, the Confidence of our Enemies is not owing to their Courage, or to their Belief of your Cowardice: They have been too often vanquished not to know both themselves and you. Discord, Discord, is the Ruin of this City. The eternal Disputes between the Senate and the People are the sole Cause of our Misfortunes. While we will set no Bounds to our Domination, nor you to your Liberty; while you impatiently endure *Patrician* Magistrates, and we *Plebeian*, our Enemies take Heart, grow elated and presumptuous. In the Name of the immortal Gods, what is it, Romans, you would have? You desired Tribunes; for the sake of Peace we granted them. You were eager to have Decemvirs; we consented to their Creation. You grew weary of these Decemvirs; we obliged them to abdicate. Your Hatred pursued them when reduced to be private Men; and we suffered you

you to put to Death or banish *Patricians* of the first Rank in the Republic. You insisted upon the Restoration of the Tribuneship; we yielded: we quietly saw Consuls of your own Faction elected. You have the Protection of your Tribunes, and the Privilege of *Appeal*; the *Patricians* are subjected to the Decrees of the *Commons*. Under Pretence of equal and impartial Laws, you have invaded our Rights; and we have suffered it, and we still suffer it. When shall we see an End of Discord? When shall we have one Interest, and one common Country? Victorious and triumphant, you shew less Temper than we under our Defeat. When you are to contend with *us*, you can seize the *Aventine Hill*, you can possess yourself of the *Mons Sacer*. The *Enemy* is at our Gates, the *Æsquiline* is near being taken, and nobody stirs to hinder it. But against *us* you are valiant, against *us* you can arm with all Diligence. Come on then, besiege the Senate-House, make a Camp of the *Forum*, fill the Jails with our chief Nobles; and when you have atchieved these glorious Exploits, then at least sally out at the *Æsquiline Gate* with the same fierce Spirits against the Enemy. Does your Resolution fail you for this? Go then, and behold from our Walls your Lands ravaged, your Houses plundered and in Flames, the whole Country laid waste with Fire and Sword. Have you any thing here to repair these Damages? will the Tribunes make up your Losses to you? They'll give you Words as many as you please; bring Impeachments in abundance against the prime Men in the State; heap Laws upon Laws; Assemblies you shall have without End: But will any of you return the richer from those Assemblies? Extinguish, O *Romans*, these fatal Divisions; generously break this cursed Incantment, which keeps you buried in a scandalous Inaction. Open your Eyes, and consider the Management of those ambitious Men, who, to make themselves powerful in their Party, study nothing but how they may foment Divisions in the Commonwealth. If you can but summon up your former Courage, if you will now march out of *Rome* with your Consuls, there is no Punishment you can inflict which I will not submit to, if I do not in a few Days drive those Pillagers out of our Territory. This Terror of War (with which you seem so grievously struck) shall quickly be removed from *Rome* to their own Cities.

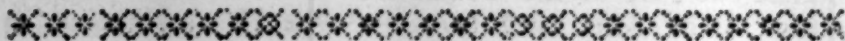
LESSON VIII.

In the following Year, M. Genucius and C. Curtius being Consuls, the Commons of Rome demand that the Plebeians may be admitted into the Consulship, and that the Law prohibiting Patricians and Plebeians from intermarrying may be repealed. In support of this Demand, Canuleius, one of the Tribunes of the People, thus delivered himself.

WHAT an Insult upon us is this! If we are not so rich as the *Patricians*, are we not Citizens of *Rome* as well as they? Inhabitants of the same Country? Members of the same Community? The Nations bordering upon *Rome*, and even Strangers more remote, are admitted not only to Marriages with us, but to what is of much greater Importance, *The Freedom of the City*. Are we, because we are Commoners, to be worse treated than Strangers? And when we demand that the People may be free to bestow their Offices and Dignities on whom they please, do we ask any thing unreasonable or new? Do we claim more than their original inherent Right? What Occasion then for all this Uproar, as if the Universe was falling to Ruin? They were just going to lay violent Hands upon me in the Senate-house. What! must this Empire then be unavoidably overturned; must *Rome* of Necessity sink at once, if a *Plebeian*, worthy of the Office, should be raised to the Consulship? The *Patricians*, I am persuaded, if they could, would deprive you of the common Light. It certainly offends them that you breathe, that you speak, that you have the Shapes of Men. Nay, but to make a Commoner a Consul would be, say they, a most enormous Thing. *Numa Pompilius*, however, without being so much as a *Roman* Citizen, was made King of *Rome*. The Elder *Tarquin*, by Birth not even an *Italian*, was nevertheless placed upon the Throne. *Servius Tullius*, the Son of a Captive Woman (nobody knows who his Father was), obtained the Kingdom as the Reward of his Wisdom and Virtue. In those Days no Man, in whom Virtue shone conspicuous, was rejected or despised on account of his Race and Descent. And did the State prosper the less for that? Were not these Strangers the very best of all our Kings? And supposing now that a *Plebeian* should have their Talents and Merit, must not he be suffered to go-

vern us? Must we rather chuse such Governors as the Decemvirs? Those excellent Magistrates, I think, were mostly *Patricians*. But we find, that upon the Abolition of the Regal Power no Commoner was chosen to the Consulate. And what of that? Before *Numa's* Time there were no Pontifices in *Rome*. Before *Servius Tullius's* Days there was no *Census*, no Division of the People into Classes and Centuries. Who ever heard of Consuls before the Expulsion of *Tarquin the Proud*? Dictators, we all know, are of modern Invention; and so are the Offices of Tribunes, *Ædiles*, *Quæstors*. Within these ten Years we have made Decemvirs, and we have unmade them. Is nothing to be done but what has been done before? That very Law forbidding Marriages of *Patricians* with *Plebeians*, is not that a new Thing? Was there any such a Law before the *Decemvirs* enacted it? And a most shameful one it is in a free State. Such Marriages, it seems, will taint the pure Blood of the Nobility! Why, if they think so, let them take Care to match their Sisters and Daughters with Men of their own Sort. No *Plebeian* will do Violence to the Daughter of a *Patrician*. Those are Exploits for our prime Nobles. There is no Need to fear that we shall force any-body into a Contract of Marriage. But to make an express Law to prohibit Marriages of *Patricians* with *Plebeians*, what is this, but to shew the utmost Contempt of us, and to declare one Part of the Community to be impure and unclean? Why don't they lay their wise Heads together, to hinder rich Folks from matching with poor? They talk to us of the Confusion there will be in Families if this Statute should be repealed. I wonder they don't make a Law against a Commoner's living near a Nobleman, or going the same Road that he is going, or being present at the same Feast, or appearing in the same Market-Place. They might as well pretend, that these Things make Confusion in Families, as that Intermarriages will do it. Does not every one know, that the Children will be ranked according to the Quality of his Father, let him be a *Patrician* or a *Plebeian*? In short, it is manifest enough, that we have nothing in View but to be treated as Men and Citizens; nor can they who oppose our Demand have any Motive to do it, but the Love of Domineering. I would fain know of you, Consuls and *Patricians*, is the Sovereign Power in the People of *Rome*, or in you? I hope you will allow, that the People can at their Pleasure either make a Law, or repeal one. And will you then, as soon as any Law is proposed to them, pretend to list them immediately for the War, and

hinder them from giving their Suffrages, by leading them into the Field? Hear me, Consuls: Whether the News of the War you talk of be true, or whether it be only a false Rumour, spread abroad for nothing but a Colour to send the People out of the City, I declare, as Tribune, that this People, who have already so often spilt their Blood in our Country's Cause, are again ready to arm for its Defence and its Glory, if they may be restored to their natural Rights, and you will no longer treat us like Strangers in our own Country. But if you account us unworthy of your Alliance by Intermarriages, if you will not suffer the Entrance to the chief Offices in the State to be open to all Persons of Merit indifferently, but will confine your choice of Magistrates to the Senate alone; talk of Wars as much as ever you please; paint in your ordinary Discourses the League and Power of our Enemies ten times more dreadful than you do now; I declare, that this People, whom you so much despise, and to whom you are nevertheless indebted for all your Victories, shall never more enlist themselves; not a Man of them shall take Arms, not a Man of them shall expose his Life for imperious Lords, with whom he can neither share the Dignities of the State, nor in private Life have any Alliance by Marriage.



LESSON IX.

You have seen, by the foregoing Speeches, the Progress of the Struggles between the Patricians and the Plebeians, which continued for many Years; the People always encroaching more and more upon the Privileges of the Patricians, till at length all the great Offices of the State became equally common to the one and to the other. The following Speech, which was spoken above an hundred Years after the foregoing one, may serve as an Instance and a Proof of that great Simplicity of Manners, public Virtue, and noble Spirit, which raised that People to that Height of Power and Dominion which they afterwards attained. The Occasion of it was this. The Tarentines, having a Quarrel with the Romans, invite Pyrrhus King of Epirus to their Assistance, who lands with his Forces in Italy, and defeats the Roman Army under the Command of Lævinus. After this Battle,

Fabritius, with two other Roman Senators, is sent to Tarentum, to treat with Pyrrhus about the Exchange of Prisoners. The King, being informed of the great Abilities and great Poverty of Fabritius, hinted, in a private Conversation with him, the Unsuitableness of such Poverty to such distinguished Merit; and that, if he would assist him to negotiate with the Romans an honourable Peace for the Tarentines, and go with him to Epirus, he would bestow such Riches upon him as should put him at least, upon an Equality with the most opulent Nobles of Rome. The Answer of Fabritius was to this Effect.

AS to my Poverty, you have indeed, Sir, been rightly informed. My whole Estate consists in a House of but mean Appearance, and a little Spot of Ground, from which; by my own Labour, I draw my Support. But if, by any means, you have been persuaded to think that this Poverty makes me less considered in my Country, or in any Degree unhappy, you are extremely deceived. I have no Reason to complain of Fortune, she supplies me with all that Nature requires; and if I am without Superfluities, I am also free from the Desire of them. With these, I confess, I should be more able to succour the Neccessitous, the only Advantage for which the Wealthy are to be envied; but, as small as my Possessions are, I can still contribute something to the Support of the State, and the Assistance of my Friends. With regard to Honours, my Country places me, poor as I am, upon a Level with the richest: For Rome knows no Qualifications for great Employments but Virtue and Ability. She appoints me to officiate in the most august Ceremonies, of Religion; she entrusts me with the Command of her Armies; she confides to my Care the most important Negotiations. My Poverty does not lessen the Weight and Influence of my Counsels in the Senate; the Roman People honour me for that very Poverty which you consider as a Disgrace; they know the many Opportunities I have had in War to enrich myself without incurring Censure; they are convinced of my interested Zeal for their Prosperity; and if I have any Thing to complain of in the Return they make, it is only the Excess of their Applause. What Value then can I set upon your Gold and Silver; what King can add any thing to my Fortune? Always attentive to discharge the Duties incumbent on me, I have a Mind free from SELF-REPROACH, and I have an HONEST FAME.

LESSON X.

The following Speeches are of a different Kind from any of the foregoing. They are the Speeches of two great Generals, at the Head of their Armies before an Engagement. It was at the Beginning of the second Punic War, that Hannibal the Carthaginian General made that surprising March over the Alps with his Army, and entered Italy. He was met near the Banks of the Po by Publius Scipio, with the Roman Army. The two Generals are said to have conceived a high Opinion of each other. Hannibal's Name had been long renowned; and that Scipio must be a Captain of eminent Worth, the Carthaginian had well concluded, from the Romans having chosen him, preferably to all others, to be his Opponent. But this mutual Impression was become much stronger by the hardy Enterprize of the one to march over the Alps, and the happy Execution of it; and the expeditious Courage of the other in coming from the Banks of the Rhone to meet him at the Foot of those Mountains. But Scipio, who was but newly appointed their General, thought proper to assemble his Soldiers before the * Engagement, and endeavoured to animate their Courage by the following Words.

WERE you, Soldiers, the same Army which I had with me in Gaul, I might well forbear saying any Thing to you at this Time. For what Occasion could there be to use Exhortation to a Cavalry that had so signally vanquished the Squadrons of the Enemy upon the Rhone, or to Legions by whom that same Enemy, flying before them to avoid a Battle, did in effect confess themselves conquered? But as these Troops, having been enrolled for Spain, are there with my Brother Cneius, making War under my Auspices (as was the Will of the Senate and People of Rome), I, that you might have a Consul for your Captain against Hannibal and the Carthaginians, have freely offered myself for this War. You then have a new General, and I a new Army. In

* This Battle was fought on the Banks of the Ticin, a small River which runs into the Po, and is called the Battle of the Ticin. Scipio received a dangerous Wound, and had been left upon the Place, if his Son, a mere Youth, (afterwards the great Africanus) had not, by a surprizing Effort of Courage, brought him off. The Romans were obliged to retire.

this

this Circumstance a few Words from *me* to *you* will be neither improper nor unseasonable. And that you may not be unapprised of what sort of Enemies you are going to encounter, or of what is to be feared from them, they are the very same whom, in a former War, you vanquished both by Land and Sea; the same from whom you took *Sicily* and *Sardinia*, and who have been these twenty Years your Tributaries. You will not, I presume, march against *these* Men with only that Courage with which you are wont to face other Enemies, but with a certain Anger and Indignation, such as you would feel if you saw your Slaves on a sudden rise up in Arms against you. Conquered and enslaved, it is not Boldness but Necessity that urges them to Battle: Unless you can believe that those who avoided fighting when their Army was intire, have acquired better Hope by the Loss of two thirds of their Horse and Foot in the Passage of the *Alps*.

But you heard perhaps, that, though they are few in Number, they are Men of stout Hearts and robust Bodies; Heroes of such Strength and Vigour, as nothing is able to resist.— Mere Effigies! nay, Shadows of Men! Wretches emaciated with Hunger, and benumbed with Cold! bruised and battered to Pieces among the Rocks and craggy Cliffs! their Weapons broke, and their Horses weak and foundered! Such are the Cavalry, and such the Infantry, with which you are going to contend; not Enemies, but the Fragments of Enemies. There is nothing which I more apprehend, than that it will be thought *Hannibal* was vanquished by the *Alps*, before we had any Conflict with him. But perhaps it was fitting that so it should be; and that, with a People and a Leader who had violated Leagues and Covenants, the Gods themselves, without Man's Help, should begin the War, and bring it to a near Conclusion; and that we, who, next to the Gods, have been injured and offended, should happily finish what they have begun. I need not be in any fear that you should suspect me of saying these Things merely to encourage you, while inwardly I have different Sentiments. What hindered me from going into *Spain*; that was my Province; where I should have had the less dreaded *Asdrubal*, not *Hannibal* to deal with? But hearing, as I passed along the Coast of *Gaul*, of this Enemy's March, I landed my Troops, sent the Horse forward, and pitched my Camp upon the *Rhone*. A Part of my Cavalry encountered and defeated that of the Enemy; my Infantry not being able to overtake theirs, which fled before us, I returned to my Fleet, and, with all the Expedition I could use in so long a Voyage by Sea and Land, am come to meet them

at the Foot of the *Alps*. Was it then my Inclination to avoid a Contest with this tremendous *Hannibal*? And have I lit upon him only by accident and unawares? or am I come on purpose to challenge him to the Combat? I would gladly try, whether the Earth, within these twenty Years, has brought forth a new kind of *Carthaginians*, or whether they be the same sort of Men who fought at the *Ægates*; and whom, at *Eryx*, you suffered to redeem themselves at eighteen *Denarii per Head*: Whether this *Hannibal*, for Labours and Journies, be, as he would be thought, the Rival of *Hercules*; or whether he be, what his Father left him, a Tributary, a Vassal, a Slave of the *Roman* People. Did not the Consciousness of his wicked Deed at *Saguntum* torment him, and make him desperate, he would have some Regard, if not to his conquered Country, yet surely to his own Family, to his Father's Memory, to the Treaty written with *Amilcar's* own Hand. We might have starved them in *Eryx*; we might have passed into *Africa* with our victorious Fleet, and in a few Days have destroyed *Carthage*. At their humble Supplication we pardoned them; we released them, when they were closely shut up without a Possibility of escaping; we made Peace with them when they were conquered. When they were distressed by the *African* War, we considered them, we treated them as a People under our Protection. And what is the Return they make us for all these Favours? Under the Conduct of a hare-brained young Man, they come hither to overturn our State, and lay waste our Country.—I could wish indeed, that it were not so; and that the War we are now engaged in concerned only our own Glory, and not our Preservation. But the Contest at present is not for the Possession of *Sicily* and *Sardinia*, but of *Italy* itself. Nor is there, behind us, another Army which, if we should not prove the Conquerors, may make Head against our victorious Enemies. There are no more *Alps* for them to pass, which might give us Leisure to raise new Forces. No, Soldiers, here you must make your Stand, as if you were just now before the Walls of *Rome*. Let every one reflect, that he is now to defend, not his own Person alone, but his Wife, his Children, his helpless Infants. Yet let not private Considerations alone possess our Minds; let us remember that the Eyes of the Senate and People of *Rome* are upon us; and that as our Force and Courage shall now prove, such will be the Fortune of that City, and of the *Roman* Empire.

LESSON XI.

Hannibal, on the other Side, made use of a new kind of Rhetoric to inspire his Soldiers with Resolution. He gave Arms to several Mountaineers, whom he had taken Prisoners in his Passage over the Alps, and proposed to them to fight two and two to the Death of one of them, in Sight of his Army; promising Liberty and a compleat Suit of Armour, with a War-horse, to such of them as came off victorious. From the Joy with which the Prisoners accepted these Conditions, and the Sentiments which Hannibal observed in his Troops on beholding these Conflicts, he took Occasion to give them a more lively Image of their present Situation; which laid them under the absolute Necessity of conquering or dying. His Speech was to this Effect,

IF, in the Estimation of your own Fortune, you will but bear the same Mind which you just now did, in contemplating the Fortune of others, the Victory, Soldiers, is ours. What you have seen, was not a mere Shew for Amusement, but a Representation of your own real Condition. I know not whether you or your Prisoners be encompassed by Fortune with the stricter Bonds and Necessities. Two Seas inclose you on the Right and Left!—not a Ship to fly to for escaping. Before you is the *Po*, a River broader and more rapid than the *Rhone*; behind you are the *Alps*, over which, even when your Numbers were undiminished, you were hardly able to force a Passage. Here then, Soldiers, you must either conquer or die, the very first Hour you meet the Enemy. But the same Fortune, which has thus laid you under the Necessity of fighting, has set before your Eyes those Rewards of Victory, than which no Men are ever wont to wish for greater from the immortal Gods. Should we by our Valour recover only *Sicily* and *Sardinia*, which were ravished from our Fathers, those would be no inconsiderable Prizes. Yet, what are those? The Wealth of *Rome*, whatever Riches she has heaped together in the Spoils of Nations, all these, with the Masters of them, will be yours. You have been long enough employed in driving the Cattle upon the vast Mountains of *Lusitania* and *Celtiberia*; you have hitherto met with no Reward worthy of the Labours and Dangers you have undergone. The Time is now come, to reap the full Recompence of your toilsome Marches over so many Mountains and Rivers, and through so many Nations, all of them

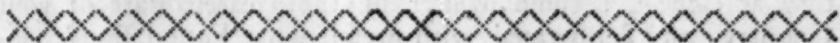
them in Arms. This is the Place which Fortune has appointed to be the Limits of your Labour; it is here that you will finish your glorious Warfare, and receive an ample Recompence of your compleated Service. For I would not have you imagine, that Victory will be as difficult as the Name of a ROMAN WAR is great and sounding. It has often happened that a despised Enemy has given a bloody Battle, and the most renowned Kings and Nations have by a small Force been overthrown. And if you but take away the Glitter of the *Roman* Name, what is there wherein they may stand in Competition with you? For (to say nothing of your Service in War for twenty Years together with so much Valour and Success) from the very Pillars of *Hercules*, from the Ocean, from the utmost Bounds of the Earth, through so many warlike Nations of *Spain* and *Gaul*, are you not come hither victorious? And with whom are you now to fight? With raw Soldiers, an undisciplined Army, beaten, vanquished, besieged by the *Gauls* the very last Summer, an Army unknown to their Leader, and unacquainted with him.

Or shall I, who was *born*, I might almost say, but certainly *brought up* in the Tent of my Father, that most excellent General, shall I, the Conqueror of *Spain* and *Gaul*, and not only of the *Alpine* Nations, but, which is greater yet, of the *Alps* themselves, shall I compare myself with this Half-year Captain? A Captain before whom should one place the two Armies, without their Ensigns, I am persuaded he would not know to which of them he is Consul? I esteem it no small Advantage, Soldiers, that there is not one among you who has not often been an Eye-witness of my Exploits in War; not one, of whose Valour I myself have not been a Spectator, so as to be able to name the Times and Places of his noble Atchievements; that with Soldiers, whom I have a thousand Times praised and rewarded, and whose Pupil I was before I became their General, I shall march against an Army of Men Strangers to one another.

On what Side soever I turn my Eyes, I behold all full of Courage and Strength; a *Veteran* Infantry, a most gallant Cavalry; you, my Allies, most faithful and valiant; you, *Carthaginians*, whom not only your Country's Cause, but the justest Anger impels to Battle. The Hope, the Courage of Assailants is always greater than of those who act upon the Defensive. With hostile Banners displayed, you are come down upon *Italy*; you bring the War. Grief, Injuries, Indignities, fire your Minds, and spur you forward to Revenge.—

First

First they demanded *me*; that I, your General, should be delivered up to them; next, *all you*, who had fought at the Siege of *Saguntum*; and we were to be put to Death by the extremest tortures. Proud and cruel Nation! Every Thing must be yours, and at your Disposal? You are to prescribe to us, with whom we shall make War, with whom we shall make Peace? You are to set us Bounds; to shut us up within Hills and Rivers; but *you*, you are not to observe the Limits which yourselves have fixed! *Pass not the IBERUS*. What next? *Touch not the SAGUNTINES*; *SAGUNTUM is upon the IBERUS, move not a Step towards that City*. Is it a small Matter, then, that you have deprived us of our ancient Possessions, *Sicily and Sardinia*? you would have *Spain* too. Well, we shall yield *Spain*; and then—you will pass into *Africa*. Will pass, did I say—This very Year they ordered one of their Consuls into *Africa*, the other into *Spain*. No, Soldiers, there is nothing left for us but what we can vindicate with our Swords. Come on, then. Be Men. The *Romans* may with more Safety be Cowards; they have their own Country behind them, have Places of Refuge to fly to, and are secure from Danger in the Roads thither; but for *you*, there is no middle Fortune between Death and Victory. Let this be but well fixed in your Minds, and once again, I say, you are CONQUERORS.



LESSON XII.

The two following Speeches are those preceding the Battle of Zama: which concluded the second Punic War to the Advantage of the Romans, after it had lasted 17 Years. They are different from the two former, as they relate to a Treaty of Peace. The two Generals were Hannibal and the famous Scipio Africanus, Son of the former Scipio. An Interview was desired by Hannibal, and agreed to by Scipio. The Place pitch'd upon was a large Plain between the two Camps, intirely open, and where no Ambush could be laid. The two Generals rode thither, escorted by an equal Number of Guards; from whom separating, and each attended only by an Interpreter, they met in the Mid-way. Both remained for a while silent, viewing each other with mutual Admiration. Hannibal at length spoke thus.

SINCE Fate has so ordained it, that I, who began the War, and who have been so often on the Point of ending

ing it by a compleat Conquest, should not come of my own Motion, to ask a Peace; I am glad that it is of you, *Scipio*, I have the Fortune to ask it. Nor will this be among the least of your Glories, that *Hannibal*, victorious over so many *Roman* Generals, submitted, at last to You.

I could wish, that our Fathers and we had confined our Ambition within the Limits which Nature seem to have prescribed to it; the Shores of *Africa*, and the Shores of *Italy*. The Gods did not give us that Mind. On both Sides we have been so eager after foreign Possessions, as to put our own to the Hazard of War. *Rome* and *Carthage* have had, each in their Turn, the Enemy at her Gates. But since Errors past may be more easily blamed than corrected, let it now be the Work of you and me to put an End, if possible, to the obstinate Contention. For my own Part, my Years, and the Experience I have had of the Instability of Fortune, inclines me to leave nothing to her Determination which Reason can decide. But much I fear, *Scipio*, that your Youth, your Want of the like Experience, your uninterrupted Success, may render you averse from the Thoughts of Peace. He whom Fortune has never failed, rarely reflects upon her Inconstancy. Yet, without recurring to former Examples, my own may perhaps suffice to teach you Moderation. I am that same *Hannibal* who, after my Victory at *Cannæ*, became Master of the greatest Part of your Country, and deliberated with myself what Fate I should decree to *Italy* and *Rome*. And now—see the Change! Here in *Africa*, I am come to treat with a *Roman*, for my own Preservation and my Country's. Such are the Sports of Fortune. Is she then to be trusted because she smiles? An advantageous Peace is preferable to the Hope of Victory. The one is in your own Power, the other at the Pleasure of the Gods. Should you prove victorious, it would add little to your own Glory, or the Glory of your Country; if vanquished, you lose in one Hour all the Honour and Reputation you have been so many Years acquiring. But what is my Aim in all this? That you should content yourself with our Cession of *Spain*, *Sicily*, *Sardinia*, and all the Islands between *Italy* and *Africa*. A Peace on these Conditions will, in my Opinion, not only secure the future Tranquillity of *Carthage*, but be sufficiently glorious for you, and for the *Roman* Name. And do not tell me, that some of our Citizens dealt fraudulently with you in the late Treaty: It is I, *Hannibal*, that now ask a Peace; I ask it, because I think it expedient

pedient for my Country ; and, thinking it expedient, I will inviolably maintain it.

LESSON XIII.

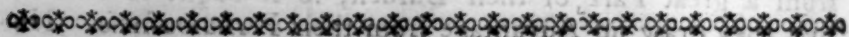
The Answer of SCIPIO was to this Effect.

I KNEW very well, *Hannibal*, that it was the Hope of your Return which emboldened the *Carthaginians* to break the Truce with us, and to lay aside all Thoughts of a Peace when it was just upon the Point of being concluded ; and your present Proposal is a Proof of it. You retrench from their Concessions every Thing but what we are, and have been long, possessed of. But as it is your Care that your Fellow Citizens should have the Obligations to you of being eased from a great Part of their Burden, so it ought to be mine that they draw no Advantage from their Perfidiousness. Nobody is more sensible than I am of the Weakness of Man, and the Power of Fortune, and that whatever we enterprize is subject to a thousand Chances. If, before the *Romans* passed into *Africa*, you had of your own accord quitted *Italy*, and made the Offers you now make, I believe they would not have been rejected. But as you have been forced out of *Italy*, and we are Masters here of the open Country, the Situation of Things is much altered. And, what is chiefly to be considered, the *Carthaginians*, by the late Treaty which we entered into at their Request, were, over and above what you offer, to have restored to us our Prisoners without Ransom, delivered up their Ships of War, paid us five thousand Talents, and to have given Hostages for the Performance of all. The Senate accepted these Conditions, but *Carthage* failed on her Part ; *Carthage* deceived us. What then is to be done ? Are the *Carthaginians* to be released from the most important Articles of the Treaty, as a Reward of their Breach of Faith ? No, certainly. If, to the Conditions before agreed upon, you had added some new Articles to our Advantage, there would have been Matter of Reference to the *Roman* People ; but when, instead of adding, you retrench, there is no room for Deliberation. The *Carthaginians* therefore must submit to us at Discretion, or must vanquish us in Battle.

N. B. *The Battle was fought, the Romans gained the Victory, and the Carthaginians submitted to Rome. This ended the second Punic War, and acquired Scipio the Surname of Africanus.*

T H E

THE following Speeches are selected from Shakespeare, and 'tis hoped they will be useful and agreeable to the Boys, as they will serve to give a Variety to their Tasks, and to bring them acquainted with the higher and more poetical Stile of their own Language. I have taken some small Liberties here and there in altering an obsolete Word, or even a Sentence, when I thought the Construction of it (which sometimes happens in Shakespeare) too hard or too obscure for Boys to understand. But this Liberty, it will be perceived, I have used but very sparingly; and never with the Presumption of hoping to mend Shakespeare, but only to make him fit and proper for my Purposes. With what Judgement the Speeches are chosen, must be left to the Determination of judicious Masters, who will be at Liberty to make use of any others which they may think more proper. The two or three last are given as Interludes for several Boys to practise on together.



LESSON I.

The Progress of Life. From the Play called,
AS YOU LIKE IT.

ALL the World's a Stage,
 And all the Men and Women merely Players;
 They have their Exits, and their Entrances;
 And one Man in his Time plays many Parts:
 His Acts being seven Ages. At first the Infant,
 Mewling and puking in his Nurse's Arms;
 And then, the whining School-boy with his Satchel,
 And shining Morning Face, creeping like Snail
 Unwillingly to School. And then, the Lover;
 Sighing like Furnace, with a woeful Ballad
 Made to his Mistress' Eyebrow. Then, a Soldier;
 Full of strong Oaths, and bearded like the Pard,
 Jealous in Honour, sudden and quick in Quarrel,
 Seeking the Bubble Reputation,
 Ev'n in the Cannon's Mouth. And then, the Justice,
 In fair round Belly, with good Capon lin'd;
 With Eyes severe, and Beard of formal Cut,
 Full of wise Saws, and modern Instances,
 And so he plays his Part. The sixth Age shifts
 Into the lean and slipper'd Pantaloon,
 With Spectacles on Nose, and Pouch on Side;

His

His youthful Hofe well fav'd, a World too wide
 For his shrunk Shank; and his big manly Voice,
 Turning again towards childish Treble, pipes,
 And whistles in his Sound. Last Scene of all,
 That ends this strange eventful History,
 Is second Childishness, and mere Oblivion;
 Sans Teeth, sans Eyes, sans Taste, sans every thing.



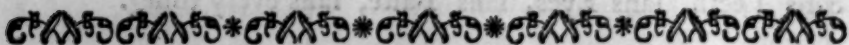
LESSON II.

HAMLET'S *Meditation on Death.*

TO be, or not to be: That is the Question.—
 Whether 'tis nobler in the Mind to suffer
 The Stings and Arrows of outrageous Fortune;
 Or to take Arms against a Sea of Troubles,
 And by opposing end them?—To die—to sleep—
 No more: and by a Sleep, to say, we end
 The Heart-ach, and the thousand natural Shocks
 That Flesh is Heir to; 'tis a Consummation
 Devoutly to be wish'd. To die—to sleep—
 To sleep?—perchance, to dream! ay, there's the Rub—
 For in that Sleep of Death what Dreams may come,
 When we have shuffled off this mortal Coil,
 Must give us pause.—There's the Retrospect,
 That makes Calamity of so long Life.
 For who would bear the Whips and Scorn o'th' Time,
 Th' Oppressor's Wrong, the proud Man's Contumely,
 The Pangs of despis'd Love, the Law's Delay,
 The Insolence of Office, and the Spurns
 That patient Merit of th' Unworthy takes,
 When he himself might his Quietus make
 With a bare Bodkin? Who would Fardles bear,
 To groan and sweat under a weary Life?
 But that the Dread of something after Death,
 (That undiscover'd Country, from whose Bourn
 No Traveller returns) puzzles the Will;
 And makes us rather bear those Ills we have,
 Than fly to others that we know not of.
 Thus Conscience does make Cowards of us all:

And

And thus the Native Hue of Resolution
Is sicklied o'er with the pale Cast of Thought;
And Enterprizes of great Pith and Moment,
With this Regard their Current turn awry,
And lose the Name of Action.



LESSON III.

*A Speech of King Henry the Fourth, upon his receiving News,
in the Night, of the Rebellion of the Earl of Northum-
berland.*

HOW many Thousands of my poorest Subjects
Are at this Hour asleep! O gentle Sleep!
Nature's soft Nurse, how have I frighted thee,
That thou no more wilt weigh my Eyelids down,
And steep my Senses in Forgetfulness?
Why rather, Sleep, lyest thou in smoaky Hutts,
Upon uneasy Pallets stretching thee,
And husht with buzzing Night-flies to thy Slumber;
Than in the perfum'd Chambers of the Great,
Beneath rich Canopies of costly State,
And lull'd with Sounds of sweetest Melody?
O thou dull God! why lyest thou with the Vile
In loathsome Beds, and leav'st the Kingly Couch
A Watch-case to a common Larum-bell?
Wilt thou upon the high and giddy Mast,
Seal up the Ship-boy's Eyes, and rock his Brains,
In Cradle of the rude imperious Surge;
And in the Visitation of the Winds,
Who take the ruffian Billows by the Top,
Curling their monstrous Heads, and hanging them
With deafening Clamours in the slippery Shrouds,
That, with the Hurly, Death itself awakes? —
Canst thou, O partial Sleep! give thy Repose
To the wet Sea-boy, in an Hour so rude?
And, in the calmest, and the stillest Night,
With all Appliances and Means to-boot,
Deny it to a King? Then, happy lowly Clown!
Uneasy lies the Head that wears a Crown.

LESSON

LESSON IV.

When Henry the Fourth was on his Death-bed, he ordered the Crown to be laid by him on his Pillow. The Prince of Wales, who had hitherto lived a very wild and dissolute Life (though afterwards he was the famous Henry the Fifth, who conquered France), sitting by his Bed-side, and imagining his Father was dead, took the Crown from his Pillow, reflecting and moralizing upon it, and retired into the next Room very sorrowful. The King, awaking, called for his Crown and Son, who entering hastily the Room, says, I never thought to hear you speak again; upon which the King takes occasion to rebuke him in the following Speech. [The Prince of Wales's Answer to be spoken by another Boy.]

K. Henry. **T**HY Wish was Father, Harry, to that Thought:

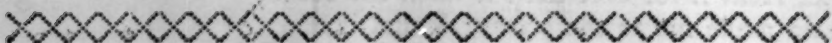
I stay too long by thee, I weary thee.
 Dost thou so hunger for my empty Chair,
 That thou wilt needs invest thee in my Honours,
 Before thy Hour be ripe? O foolish Youth!
 Thou suck'st the Greatness that will overwhelm thee.
 Stay but a little; for my Cloud of Dignity
 Is held from falling with so weak a Wind,
 That it will quickly drop; my Day is done.
 Thou hast stol'n That, which, after a few Hours,
 Were thine without Offence; and at my Death
 Thou hast seal'd up my Expectation.
 Thy Life did manifest, thou lov'dst me not;
 And thou wilt have me die assur'd of it.
 Thou hid'st a thousand Daggers in thy Thoughts,
 Which thou hast whetted on thy stony Heart,
 To stab at half an Hour of my frail Life.
 What! canst thou not forbear me half an Hour?
 Then get thee gone, and dig my Grave thyself,
 And bid the merry Bells ring to thy Ear,
 That Thou art crowned, not that I am dead.
 Let all the Tears, that should bedew my Herse,
 Be Drops of Balm to sanctify thy Head;
 Only compound me with forgotten Dust,
 Give that which gave thee Life, unto the Worms;
 Pluck down my Officers, break my Decrees;
 For now a Time is come to mock at Form:

Henry

Henry the Fifth is crown'd : Up, Vanity !
 Down, royal State ! all you sage Counsellors, hence ;
 And at the *English* Court assemble now,
 From ev'ry Region, Apes of Idleness :
 Now, neighbour Confines, purge you of your Scum ;
 Have you a Russian that will swear, drink, dance,
 Revel the Night, rob, murder, and commit
 The oldest Sins the newest kind of Ways ?
 Be happy, he will trouble you no more :
England shall give him Office, Honour, Might :
 For the Fifth *Harry* from curb'd Licence plucks
 The Muzzle of Restraint ; and the wild Dog
 Shall flesh his Tooth on every Innocent.
 O my poor Kingdom, sick with Civil Blows !
 When that my Care would not with-hold thy Riots,
 What wilt thou do when Riot is thy Care ?
 O, thou wilt be a Wilderness again,
 Peopled with Wolves, thy old Inhabitants.

P. Henry. O pardon me, my Liege ! but for my Tears
 I had forestall'd this dear and deep Rebuke, [Kneeling]
 Ere you with Grief had spoke, and I had heard
 The Course of it so far. There is your Crown :
 And he that wears the Crown immortally
 Long guard it yours ! If I affect it more,
 Than as your Honour, and as your Renown,
 Let me no more from this Obedience rise,
 Which my most true and inward-duteous Spirit
 Teacheth this prostrate and exterior Bending.
 Heav'n witness with me, when I here came in,
 And found no Course of Breath within your Majesty,
 How cold it struck my Heart ! If I do feign,
 O let me in my present Wildness die,
 And never live to shew th' incredulous World
 The noble Change that I have purposed.
 Coming to look on you, thinking you dead,
 (And dead almost, my Liege, to think you were)
 I spake unto the Crown as having Sense,
 And thus upbraided it. " The Care on thee depending
 " Hath fed upon the Body of my Father."
 Accusing it, I put it on my Head,
 To try with it (as with an Enemy
 That had before my Face murder'd my Father)
 The Quarrel of a true Inheritor.
 But if it did affect my Blood with Joy,

I see you stand like Greyhounds in the Slips,
 Straining upon the Start. The Game's afoot;
 Follow your Spirit; and, upon this Charge,
 Cry, God for *Harry! England! and St. George!*



LESSON VI.

Part of the Speech spoken by the Chorus in the Play of Henry the Fifth. The Time supposed to be the Night before the Battle of Agincourt.

NOW let Imagination form a Time,
 When creeping Murmur, and the poring Dark,
 Fills the wide Vessel of the Universe.
 From Camp to Camp, through the foul Womb of Night,
 The Hum of either Army stilly sounds;
 That the fixt Centinels almost receive
 The secret Whispers of each other's Watch.
 Fire answers Fire; and through their paly Flames
 Each Battle sees the other's umber'd Face.
 Steed threatens Steed, in high and boastful Neighs
 Piercing the Night's dull Ear; and from the Tents
 The Armourers, accomplishing the Knights,
 With busy Hammers closing Rivets up,
 Give dreadful Note of Preparation.
 The Country Cocks do crow, the Clocks do toll:
 And (the third Hour of drousy Morning nam'd)
 Proud of their Numbers and secure in Soul,
 The confident and over-hasty *French*
 Do chide the cripple tardy-paced Night,
 Who, like a foul and ugly Witch, does limp
 So tediously away. The poor condemned *English*,
 Like Sacrifices, by their watchful Fires
 Sit patiently, and inly ruminate
 The Morning's Danger: and their Danger sad,
 Set forth in lank-lean Cheeks and War-worn Coats,
 Presenteth them unto the gazing Moon
 So many horrid Ghosts—Who now beholds
 The royal Captain of this ruin'd Band
 Walking from Watch to Watch, from Tent to Tent,
 Let him cry, Praise and Glory on his Head!
 For forth he goes and visits all his Host,
 Bids them Good-morrow with a modest Smile,

And

And calls them Brothers, Friends, and Countrymen:
 Upon his royal Face there is no Note
 How dread an Army hath enrounded him:
 Nor doth he give up the least Jot of Colour
 Unto the weary and all-watched Night;
 But freshly looks, and over-bears Fatigue
 With chearful Semblance and sweet Majesty:
 That ev'ry Wretch, pining and pale before,
 Beholding him, plucks Comfort from his Looks.



LESSON VII.

The Speech of Henry the Fifth at the Battle of Agincourt, where he gained that glorious Victory which compleated the Conquest of France, and which is so highly celebrated by all our Historians, as he encountered near sixty thousand Frenchmen with so small a Number as twelve thousand English. The Earl of Westmoreland saying;

O that we now had here
 But one ten thousand of those Men in England,
 That do no Work to-day!

King Henry, with a noble and undaunted Spirit, spoke as follows.

WHAT's he that wishes so?
 My Cousin *Westmoreland*? No, my fair Cousin,
 If we are mark'd to die, we are enow
 To do our Country Loss; and if to live,
 The fewer Men, the greater Share of Honour.
 God's Will! I pray thee wish not one Man more.
 I am not the least covetous of Gold;
 Nor care I who doth feed upon my Cost;
 It yerns me not if Men my Garments wear;
 Such outward Things dwell not in my Desire:
 But if it be a Sin to covet Honour,
 I am the most offending Soul alive.
 No, no, my Lord, wish not a Man from *England*:
 I would not lose so great, so high an Honour
 As one Man more, methinks, should share from me,
 For the best Hopes I have. Don't wish one more:
 Rather proclaim it, *Westmoreland*, throughout my Host,
 That he who hath no Stomach to this Fight,

Let him depart; his Passport shall be made
 And Crowns for Convoy put into his Purse:
 We would not die in that Man's Company,
 That fears his Fellowship to die with us.
 This Day is call'd the Feast of *Crispian*:
 He that out-lives this Day, and comes safe home,
 Will stand a tip-toe when this Day is nam'd,
 And rouze him at the Name of *Crispian*:
 He that out-lives this Day, and sees old Age,
 Will yearly on the Vigil feast his Neighbours,
 And say, To-morrow is Saint *Crispian*:
 Then will he strip his Sleeve, and shew his Scars:
 Old Men forget; yet shall not all forget,
 But they'll remember, with Advantages,
 What Feats they did that Day. Then shall our Names,
 Familiar in their Mouths as Household Words,
Harry the King, Bedford and Exeter,
Warwick and Talbot, Salisbury and Gloucester,
 Be in their flowing Cups freshly remember'd.
 This Story shall the good Man teach his Son,
 And *Crispin, Crispian* shall ne'er go by,
 From this Day to the Ending of the World,
 But we in it shall be remember'd;
 We few, we happy few, we Band of Brothers:
 For he, to-day that sheds his Blood with me,
 Shall be my Brother: Be he ne'er so vile,
 This Day shall gentle his Condition.
 And Gentlemen in *England*, now a-bed,
 Shall think themselves accurs'd they were not here,
 And hold their Manhoods cheap, while any speaks,
 Who fought with us upon St. *Crispian's* Day.

LESSON VIII.

The Fall of Cardinal Wolsey.

Wol. **F**AREWEL, a long Farewel to all my Greatness!
 This is the State of Man; to-day he puts forth
 The tender Leaves of Hope; to-morrow blossoms,
 And bears his blushing Honours thick upon him;
 The third Day comes a Frost, a killing Frost,
 And when he thinks, good easy Man, full surely
 His Greatness is a ripening, nips his Root;

And

And then falls, as I do. I have ventur'd,
Like little wanton Boys, that swim on Bladders,
These many Summers, in a Sea of Glory:
But far beyond my Depth: my high-blown Pride
At length broke under me; and now has left me,
Weary, and old with Service, to the Mercy
Of a rude Stream, that must for ever hide me.
Vain Pomp and Glory of this World, I hate ye;
I feel my Heart new-open'd. Oh, how wretched
Is that poor Man that hangs on Princes Favours!
There is, betwixt that Smile which we aspire to,
That sweet Regard of Princes, and our Ruin,
More Pangs and Fears than War and Women know;
And when he falls, he falls like *Lucifer*,
Never to hope again.

Enter Cromwell, standing amazed.

Why, how now, *Cromwell*!

Crom. I have no Power to speak, Sir.

Wolf. What, amaz'd

At my Misfortunes? Can thy Spirit wonder,
A great Man should decline? Nay, if you weep,
I'm fallen indeed.

Crom. How does your Grace?

Wolf. Why, well;

Never so truly happy, my good *Cromwell*.
I know myself now, and I feel within me
A Peace above all earthly Dignities;
A still and quiet Conscience. The King has cur'd me,
I humbly thank his Grace; and from these Shoulders,
These ruin'd Pillars, out of Pity taken
A Load would sink a Navy, too much Honour.
O, 'tis a Burden, *Cromwell*, 'tis a Burden,
Too heavy for a Man, that hopes for Heav'n.

Crom. I'm glad your Grace makes the right Use of it,

Wolf. I hope I do: I'm able now, methinks,
Out of a Fortitude of Soul I feel,
T' endure more Miseries, and greater far
Than my weak-hearted Enemies dare offer.
What News abroad?

Crom. The heaviest, and the worst,
Is your Displeasure from the King.

Wolf. God bless him!

Crom. The next is, that Sir *Thomas More* is chosen
Lord Chancellor in your Place.

Wolf. That's somewhat sudden——

But he's a learned Man. May he continue
Long in his Highness' Favour, and do Justice
For Truth's sake and his Conscience, that his Bones,
When he has run his Course, and sleeps in Blessings,
May have a Tomb of Orphans Tears wept on him!
What more?

Crom. That *Cranmer* is return'd with Welcome;
Install'd Lord Archbishop of *Canterbury*.

Wolf. That's News, indeed.

Crom. Last, that the Lady *Ann*,
Whom the King hath in Secrecy long married,
This Day was view'd in open as his Queen,
Going to Chapel; and the Voice is now
Only about her Coronation.

Wolf. There was the Weight that pull'd me down,
O *Cromwell*,
The King has gone beyond me: all my Glories
In that one Woman I have lost for ever.
No Sun shall ever usher forth my Honours,
Or gild again the noble Troops that waited
Upon my Smiles. Go, get thee from me, *Cromwell*.
I am a poor fall'n Man, unworthy now
To be thy Master. Seek the King; I've told him
What, and how true thou art: he will advance thee;
Some little Memory of me will stir him;
I know his noble Nature, not to let
Thy hopeful Service perish too. Good *Cromwell*,
Neglect him not, be mindful, and provide
For thine own future Safety.

Crom. O, my Lord,
Must I then leave you? Must I needs forego
So good, so noble, and so true a Master?
Bear witness, all that have not Hearts of Iron,
With what a Sorrow *Cromwell* leaves his Lord.
The King shall have my Service; but my Prayers
For ever and for ever shall be yours.

Wolf. *Cromwell*, I did not think to shed a Tear
In all my Miseries; but thou hast forc'd me,
Out of thy honest Truth, to play the Woman—
Let's dry our Eyes: and thus far hear me, *Cromwell*;
Mark by my Fall, and that which ruin'd me,
And when I am forgotten, as I shall be,
And sleep in dull cold Marble, where no Mention
Of me must more be heard: say then, I taught thee;

Say,

Say, *Wolsey*, that once rode the Waves of Glory,
 That founded all the Depths and Shoals of Honour,
 Found thee a Way out of this Wreck, to rise in ;
 A sure and safe one, tho' thy Master mis'd it.
Cromwell, I charge thee, fling away Ambition ;
 By that Sin fell the Angels ; how can Man then
 (The Image of his Maker) hope to win by't ?
 Love thyself last, cherish those Hearts that wait thee ;
 Corruption wins not more than Honesty.
 Still in thy Right-hand carry gentle Peace,
 To silence envious Tongues. Be just, and fear not.
 Let all the Ends thou aim'st at, be thy Country's,
 Thy God's, and Truth's : Then, if thou fall'st, O *Cromwell*,
 Thou fall'st a blessed Martyr. Serve the King ;
 And, pr'ythee, lead me in——
 There take an Inventory of all I have ;
 To the last Penny, 'tis the King's. My Robe,
 And my Integrity to Heaven, is all
 I now dare call my own. O *Cromwell*, *Cromwell*,
 Had I but serv'd my God with half the Zeal
 I serv'd my King, he would not in mine Age
 Have left me naked to mine Enemies.
Crom. Good Sir, have Patience.
Wolfs. So I have. Farewel
 The Hopes of Court, my Hopes are fix'd on Heav'n.

LESSON IX.

The Quarrel of Brutus and Cassius, in the Play of Julius Cæsar.

Cassius. **T**HAT you have wrong'd me, doth appear in this ;
 You have condemn'd and noted *Lucius Pella*,
 For taking Bribes here of the *Sardians* ;
 Wherein, my Letter (writ on his Behalf
 Because I knew the Man) was disregarded.

Brutus. You wrong'd yourself to write in such a Cause.

Cas. In such a Time as this, it is not meet
 That every nice Offence should bear its Comment.

Brut. Nay, let me tell you, *Cassius*, you yourself
 Are much suspected of an itching Palm ;
 And that you sell your Offices for Gold,
 To Undeservers,

Cas. I an itching Palm?
You know that you are *Brutus*, that speak this;
Or, by the Gods, this Speech were else your last.

Brut. The Name of *Cassius* honours this Corruption,
And Chastisement doth therefore hide its Head.

Cas. Chastisement!—

Brut. Remember *March*, the *Ides of March* remember!
Did not great *Julius* bleed for Justice sake?
What Villain touch'd his Body, that did stab,
And not for Justice? What, shall one of us,
That struck the foremost Man of all the World,
But for supporting Robbers; shall we now
Contaminate our Fingers with base Bribes?
And sell the mighty Meed of our large Honours
For so much Trash as may be grasped thus?—
I had rather be a Dog, and bay the Moon,
Than such a *Roman*.

Cas. *Brutus*, bay not me;
I'll not endure it; I am a Soldier. I,
Older in Practice; abler than yourself
To make Conditions.

Brut. Go to; you are not, *Cassius*.

Cas. I am.

Brut. I say you are not.

Cas. Urge me no more, I shall forget myself—
Have mind upon your Health—tempt me no farther.

Brut. Away, slight Man!

Cas. Is't possible?

Brut. Hear me, for I will speak.
Must I give way and room to your rash Choler?
Shall I be frighted when a Madman stares?

Cas. O Gods! must I endure all this?

Brut. All this! ay, more. Fret till your proud Heart break;
Go, shew your Slaves how choleric you are,
And make your Bondmen tremble.
Must I observe you? Must I stand and crouch
Under your testy Humour? By the Gods,
You shall digest the Venom of your Spleen,
Though it do split you: For from this Day forth,
I'll use you for my Mirth, yea, for my Laughter,
When you are waspish.

Cas. Is it come to this?

Brut. You say, you are a better Soldier?
Let it appear so; make your Vaunting true,

And it shall please me well. For mine own Part,
I shall be glad to learn of noble Men.

Cas. You wrong me every way—you wrong me, *Brutus*;
I said an elder Soldier; not a better.

Did I say, better?—

Brut. If you did, I care not.

Cas. When *Cæsar* liv'd, he durst not thus have mov'd me,

Brut. Peace, Peace, you durst not thus have tempted him;

Cas. I durst not!—

Brut. No.

Cas. What! durst not tempt him?—

Brut. For your Life you durst not.

Cas. Do not presume too much upon my Love;
I may do that I shall be sorry for.

Brut. You have done that you should be sorry for,
There is no Terror, *Cassius*, in your Threats;
For I am arm'd so strong in Honesty,
That they pass by me as the idle Wind,
Which I respect not. I did send to you
For certain Sums of Gold, which you deny'd me;
For I can raise no Money by vile Means:
By Heav'n, I had rather coin my Heart,
And drop my Blood for Drachmas, than to wring
From the hard Hands of Peasants their vile Trash,
By any Indirection. I did send
To you for Gold to pay my Legions,
Which you deny'd me; was that done like *Cassius*?
Should I have answer'd *Caius Cassius* so?
When *Marcus Brutus* grows so covetous
To lock such rascal Counters from his Friends,
Be ready, Gods, with all your Thunderbolts,
Dash him to pieces.

Cas. I deny'd you not.

Brut. You did.

Cas. I did not—he was but a Fool
That brought my Answer back—*Brutus* hath riv'd my Heart.
A Friend should bear a Friend's Infirmities,
But *Brutus* makes mine greater than they are.

Brut. I do not. Still you practise them on me.

Cas. You love me not.

Brut. I do not like your Faults.

Cas. A friendly Eye could never see such Faults.

Brut. A Flatterer's would not, tho' they do appear
As huge as high *Olympus*.

Cas.

Cas. Come, *Anthony*, and young *Octavius*, come;
 Revenge yourselves alone on *Cassius*,
 For *Cassius* is a-weary of the World;
 Hated by one he loves; brav'd by his Brother;
 Check'd like a Bondman; all his Faults observ'd;
 Set in a Note-book, learn'd, and conn'd by rote,
 To cast into my Teeth. O I could weep
 My Spirit from mine Eyes!—There is my Dagger,
 And here my naked Breast——within, a Heart
 Dearer than *Plutus'* Mine, richer than Gold;
 If that thou need'st a *Roman's*, take it forth.
 I, that deny'd thee Gold, will give my Heart;
 Strike as thou didst at *Cæsar*; for I know,
 When thou didst hate him worst, thou lov'dst him better
 Than ever thou lov'dst *Cassius*.

Brut. Sheath your Dagger;
 Be angry when you will, it shall have Scope;
 Do what you will, Dishonour shall be Humour.
 O *Cassius*, you are yoked with a Lamb,
 That carries Anger as the Flint bears Fire;
 Who, much enforced, shews a hasty Spark,
 And straight is cold again.

Cas. Hath *Cassius* liv'd
 To be but Mirth and Laughter to his *Brutus*,
 When Grief, and Blood ill-temper'd, vexeth him?

Brut. When I spoke that, I was ill-temper'd too.

Cas. Do you confess so much? Give me your Hand.

Brut. And my Heart too.

[Embracing,

Cas. O *Brutus*!

Brut. What's the matter?

Cas. Have you not Love enough to bear with me,
 When that rash Humour which my Mother gave me
 Makes me forgetful?

Brut. Yes, *Cassius*, and from henceforth
 When you are over-earnest with your *Brutus*,
 He'll think, your Mother chides, and pass it by,

LESSON X.

The Folly of EXTRAVAGANCE.

Being several Scenes from Timon of Athens, somewhat altered, and thrown into one.

Enter Flavius the Steward, with Bills in his Hand, and several Creditors following him.

Flavius. **N**O Care! no Stop! so thoughtless of Expenſe,
That he will neither know how to maintain it,
Nor ceaſe his Flow of Riot. Takes no account
How Things go from him, nor has any Care
Of what is to continue. He'll not hear,
Till ſtrong Neceſſity ſhall make him feel.
What can be done?—
You muſt be round with him; he now comes from Hunting,

Enter Timon.

1ſt Creditor. My Lord, here is a Note of certain Dues,

Timon. Dues? whence are you?

1ſt Cred. of Athens here, my Lord.

Tim. Go to my Steward.

1ſt Cred. Pleaſe your Lordſhip, he hath put me off
To the Succeſſion of new Days, this Month:
My Maſter is now urg'd by great Occaſion
To call in what's his own; and humbly prays
That with your other noble Parts you'll ſuit,
In giving him his Right.

Tim. Mine honeſt Friend,

I pry'thee but repair to me to-morrow.

1ſt Cred. Nay, good my Lord—

Tim. Contain thyſelf, good Friend.

2d Cred. One Varro's Servant, my good Lord—

3d Cred. From Iſidore, he prays your ſpeedy Payment—

1ſt Cred. If you did know, my Lord, my Maſter's Wants—

2d Cred. 'Twas due on Forfeiture ſix Weeks, and paſt—

3d Cred. Your Steward puts me off, my Lord; and I
Am ſent expreſsly to your Lordſhip.

Tim. Give me Breath. Come hither, *Flavius*.

How goes the World, that I am thus encounter'd
With Claims of long-paſt Debts, of broken Bonds,

And

And the Detention of Men's lawful Rights,
Against my Honour?

Flav. Please you, Gentlemen,
The Time is unagreeable to this Business;
Your Importunity cease till after Dinner,
That I may make his Lordship understand
Wherefore you are not paid.

Tim. Do so, my Friends. [*Exeunt Creditors.*]
Come, *Flavius*, let me know, wherefore ere this
You have not fully laid my State before me;
That I might so have rated my Expence,
As I had leave of Means?

Flav. O my good Lord,
At many Times I brought in my Accounts,
Laid them before you: You would throw them off,
And say, you found them in mine Honesty.
When, for some trifling Present, you have bid me
Return so much, I've shook my Head, and wept:
Yea, 'gainst th' Authority of Manners, pray'd you
To hold your Hand more close.
My dear lov'd Lord,
Tho' now you hear too late, even at this Time
The greatest of your Having lacks a half
To pay your present Debts.

Tim. Let all my Land be sold.

Flav. 'Tis all engag'd; some forfeited, and gone:
And what remains will hardly stop the Mouth
Of present Dues; the future comes apace;
What shall defend the Interim, and at length
Hold good our Reckoning?

Tim. To *Lacedæmon* did my Land extend.

Flav. O, my good Lord, the World is but a Word;
Were it all yours, to give it in a Breath,
How quickly were it gone!

Tim. You tell me true.

Flav. If you suspect my Husbandry or Truth,
Call me before the Auditors,
And set me on the Proofs. So the Gods bless me,
When all our Offices have been oppress'd
With riotous Feeders; when our Vaults have wept
With drunken Spilth of Wine; when every Room
Hath blaz'd with Lights, and bray'd with Minstrelsie;
I have retir'd me to a silent Nook,
And set mine Eyes on flow.

Tim. Pr'ythee, no more,

Flav.

Flav. Heavens ! have I said, from the Bounty of this Lord,
How many prodigal Bits have Slaves and Peasants
This Night englutted ? Who now is not *Timon's* ?
What Heart, Head, Sword, Force, Means, but is Lord *Timon's* !
Great *Timon's* ! noble, worthy, royal *Timon's* !
Ah ! when the Means are gone that buy this Praise,
The Breath is gone whereof this Praise is made ;
One Cloud of Winter Showers,
These Flies are caught.

Tim. Come, sermon me no farther.
Unwisely, not ignobly, have I given.
Why dost thou weep ? Canst thou the Conscience lack,
To think I shall lack Friends ? Secure thy Heart ;
If I would broach the Vessels of my Love,
And try the Gratitude of Friends by borrowing,
Men and their Wealth could I as frankly use,
As I could bid thee speak.

Flav. Assurance blefs your Thoughts !

Tim. Nay, in some sort these Wants of mine are crown'd,
And I account them Blessings ; for by these
Shall I try Friends. You shall perceive how you
Mistake my Fortunes : In my Friends I'm wealthy.
Within there, ho !

[Enter three Servants.]

I will dispatch you severally.
You to Lord *Lucius*—to Lord *Lucullus* you, I hunted with his
Honour to-day—you to *Sempronius*—commend me to their
Loves : and I am proud, say, that my Occasions have found
Time to use 'em towards a Supply of Money ; let the Request
be fifty Talents.

[Exeunt the Servants.]

Go you, Sir, to the Senators ;
Of whom, for Service done the State, I have
Deserv'd this Hearing ; bid 'em send o' th' instant
A thousand Talents to me.

Flav. I've been bold
(For that I knew it the most general Way)
To them to use your Signet and your Name ;
But they do shake their Heads, and I am here
No richer in Return.

Tim. Is it true ? Can it be ?

Flav. They answer, in a joint and corporate Voice,
That now they are at Ebb, want Treasure, cannot
Do what they wou'd ; are sorry—you are honourable—
But yet they could have wish'd—they know not—
Something hath been amiss—
Would all were well—'tis Pity—

And

And so, attending other serious Matters,
After distasteful Looks, and these hard Fractions;
With certain Half-caps, and cold-moving Nods,
They froze me into Silence.

Tim. You Gods reward 'em !

I pr'ythee, Man, look cheerly. These old Fellows
Have their Ingratitude in them hereditary;
Their Blood is cak'd, 'tis cold, it seldom flows,
And Nature, as it grows again toward Earth,
Is fashion'd for the Journey, dull and heavy.
But be not sad ; no Blame belongs to thee :
Thou'rt true and just. And never doubt, or think
That *Timon's* Virtues 'mong his Friends can sink.

Flav. Would I could not : That Thought is Bounty's Foe ;
Being free itself, it thinks all others so.

Enter first Servant.

Tim. Peace, here comes my Messenger from Lord *Lucullus*.
Well, what Success ?

1st Serv. Soon as I saw my Lord *Lucullus* ; Honest Friend,
says he, you are very respectfully welcome. Fill me some
Wine. And how does that honourable, compleat, free-
hearted Gentleman of *Athens*, thy very bountiful good Lord
and Master ? His Health, said I, is very well, Sir. I am
right glad to hear, quoth he, his Health is well : And what
hast thou there under thy Cloak ? A Gift, I warrant : Why
this hits well, I dreamt of a Silver Bason and Ewer last Night.
No, faith, my Lord, says I, here's nothing but an empty
Box, which, in my Lord's Behalf, I come to intreat your
Honour to supply ; who, having great and instant Occasion to
use fifty Talents, hath sent to your Lordship to furnish him,
nothing doubting your present Assistance therein. Nothing
doubting ! says he, with an alter'd Tone and Countenance ;
alas, good Lord, a noble Gentleman 'tis, if he would not keep
so good a House. Many a time and often have I din'd with
him, and told him of it ; and came again to Supper with him,
on purpose to have him spend less. And yet he would em-
brace no Counsel, take no Warning by my coming. Every
Man hath his Fault, and Honesty is his. I have told him of
it, but I could never get him from it. Good Friend, he goes
on, I have noted thee always wise ; here's to thee. I have
observed thee always for a towardly prompt Spirit, give thee
thy Due ; and one that knows what belongs to Reason ; and
canst use the Time well, if the Time use thee well. Good

Parts in thee.—Draw nearer, honest Friend : Thy Lord's a bountiful Gentleman ; but thou art wise, and thou knowest well enough (although thou com'st to me) that this is no Time to lend Money, especially upon bare Friendship, without Security: Here's three Solidares for thee ; go, Boy, wink at me, and say thou saw'st me not.—Is't possible, quoth I, the World should so much differ ? Fly, damn'd Baseness, to him that worships thee ! (and threw it back with Scorn.)

Tim. I thank thee for thy honest Zeal.

[Enter 2d Servant.] But here

Comes he I sent to *Lucius*. What sayst thou ?

2d Servant. My Lord, I saw Lord *Lucius*, and began to deliver your Message to him. May it please your Honour, said I, my Lord hath sent—Ha ! what hath he sent ? says he ; I am so much endeared to that Lord ; he's ever sending : how shall I thank him, think'st thou ? And what has he sent ? He has only sent his present Occasion now, my Lord, says I ; requesting your Lordship to supply his instant Use with fifty Talents. I know his Lordship is but merry with me, quoth he ; he cannot want fifty times five hundred Talents. Were his Occasion, I reply'd, less pressing, I should not urge it half so fervently. Dost thou speak seriously then ? says he. Why what a wicked Beast was I, to disfurnish myself against such a good Time, when I might have shewn myself honourable ? How unlucky it happened that I should make a Purchase but a Day before ? I am vastly sorry I am not able to do—I was sending to use Lord *Timon* myself, these Gentlemen can witness ; but I would not for the Wealth of *Athens* I had done it now. Commend me bountifully to his good Lordship ; and I hope his Honour will conceive the fairest of me, because I have really no Power to be kind. And tell him this from me, I count it one of my greatest Afflictions, that I cannot pleasure such an honourable Gentleman.

Tim. And is this all ? This the Return for all I've done ?—But see my Messenger from *Sempronius*. What says he ?

3d Servant. *Sempronius*, my Lord, after much Hesitation, and muttering to himself, cry'd in a furlly Tone, Must he needs trouble me in't ?—Me above all others ?—He might have try'd Lord *Lucius*, or *Lucullus* ; and now *Ventidius* is wealthy too, whom he redeem'd from Prison : All these owe their Estates unto him. O, my Lord, says I, they've all been touch'd, and all are found base Metal ; for they've all deny'd him. How ! deny'd him ? says he ; *Ventidius* and *Lucullus* both deny'd him ? And does he send to me ? Hum !—It shews but little Love or Judgment in him. Must I be his last Refuge ?

fuge? He has much disgraced me in it. I'm angry. He might have known my Place; I see no Cause, but his Occasions might have woo'd me first: for in my Conscience I was the first Man that e'er receiv'd a Present from him. And does he think so backwardly of me that I'll requite it last? No: so it may prove an Argument of Laughter to the rest, and I 'mongst Lords be thought a Fool. I'd rather than the Worth of thrice the Sum he'd sent to me first, but for my Mind's Sake: I had such a Courage to have done him good. But now return,

And with their faint Reply this Answer join;
Who doubts mine Honour, shall not know my Coin!

Tim. Excellent! A goodly Villain!

Flav. Why, this is the World's Soul;
Of the same Piece is every Flatterer's Spirit.
O *Timon*! see the Monstrousness of Man,
When he looks out in an ungrateful Shape!
These Trencher-friends do now deny to thee
What charitable Men afford to Beggars.

Tim. And is it thus?—This then is *Timon's* last—
Ye Knot of Mouth-friends! Smoke, and lukewarm Water
Are your true Likeness. O live loath'd, and long,
Ye smiling, smooth, detested Parasites!
Athens, adieu! Nothing I'll bear from thee
But Nakedness, thou detestable Town!
Timon will to the Woods, where he shall find
Th' unkindest Beast more friendly than Mankind.

[Exit in a Rage.]

1st Serv. Hark you, good Steward, where's our Master gone?
Are we undone, cast off, nothing remaining?

Flav. Alack, my Fellows, what should I say to you?
Let me be recorded by the righteous Gods,
I'm near as poor as you.

1st Serv. Such a House broke up!
So noble a Master fall'n! all gone! and not
One Friend to take his Fortune by the Arm,
And go along with him!

2d Serv. As we do turn our Backs
From our Companion thrown into his Grave;
So his Familiars from his bury'd Fortunes
Slink all away; leave their false Vows to him
Like empty Purfes pick'd: And his poor Self,
A dedicated Beggar to the Air,
With his Disease of all-shun'd Poverty
Walks, like Contempt, alone.

3d Serv.

3d Serv. Yet do our Hearts wear *Timon's* Livery,
That see I by our Faces; we are Fellows still,
Serving alike in Sorrow. Leak'd is our Bark,
And, we poor Mates, stand on the dying Deck,
Hearing the Surges threat.

Flav. Good Fellows all;
The latest of my Wealth I'll share amongst you.
Where-ever we shall meet, for *Timon's* Sake,
Let's yet be Fellows; shake our Heads, and say,
(As 'twere a Knell unto our Master's Fortunes)
We have seen better Days.
O the vast Wretchedness that Grandeur brings!
Who'd be so mock'd with Glory as to live
But in a Dream of Friendship? All his Pomp
But only painted, like his varnish'd Friends!
Poor honest Lord! brought low by his own Heart,
Undone by Goodness; strange, unusual Mood!
This Man's worst Crime was doing too much Good.

[*Exeunt.*]



SECT. III.

On Writing LETTERS.

AFTER Reading and Speaking with Grace and Propriety, the next thing to be considered, is the Art of Writing Letters; as a great Part of the Commerce of human Life is carried on by this Means.

The Art of Epistolary Writing, as the late Translator of *Pliny's* Letters has observed, was esteemed by the *Romans* in the Number of liberal and polite Accomplishments; and we find *Cicero* mentioning with great Pleasure, in some of his Letters to *Atticus*, the elegant Specimen he had received from his Son, of his Genius in this Way*. It seems indeed to have formed Part of their Education; and, in the Opinion of *Mr. Locke*, it well deserves to have a Share in ours. "The Writing of Letters (as that judicious Author observes) enters so much into all the Occasions of Life, that no Gentle-

* Ad Att. lxx. 16, 17.

" man can avoid shewing himself in Compositions of this Kind.
 " Occurrences will daily force him to make this Use of his
 " Pen, which lays open his Breeding, his Sense, and his Abi-
 " lities, to a severer Examination than any oral Discourse."
 It is to be wondered we have so few Writers in our own Lan-
 guage, who deserve to be pointed out as Models upon such an
 Occasion. After having named Sir *William Temple*, it would
 be difficult perhaps to add a Second. The elegant Writer of
Cowley's Life mentions him as excelling in this uncommon
 Talent; but as that Author declares himself of Opinion,
 " That Letters which pass between familiar Friends, if they
 " are written as they should be, can scarce ever be fit to see
 " the Light," the World is deprived of what, no doubt, would
 have been well worth its Inspection. A late distinguished
 Genius treats the very Attempt as ridiculous, and professes
 himself " a mortal Enemy to what they call a fine Letter."
 His Aversion however was not so strong, but he knew how to
 conquer it when he thought proper; and the Letter which
 closes his Correspondence with Bishop *Atterbury* is, perhaps,
 the most genteel and manly Address that ever was penned to a
 Friend in Disgrace. The Truth is, a fine Letter does not
 consist in saying fine Things, but in expressing ordinary ones in
 an uncommon Manner. It is the *proprie communia dicere*, the
 Art of giving Grace and Elegance to familiar Occurrences,
 that constitutes the Merit of this Kind of Writing. Mr. *Gay's*
 Letter, concerning the two Lovers who were struck dead with
 the same Flash of Lightning, is a Master-piece of the Sort;
 and the Specimen he has there given of his Talents for this
 Species of Composition makes it much to be regretted we
 have not more from the same Hand: We might then have
 equalled, if not excelled, our Neighbours the *French* in this,
 as we have in every other Branch of polite Literature, and
 have found a Name among our own Countrymen to mention
 with the easy *Voiture*.

I will here give you, from our best Authors in this Way,
 some Specimens of Letters of different Kinds, as also some
 Translations from the *Latin* and *French*, by way of Examples;
 and I shall close with an Original which I have by me, written
 to a young Gentleman at School, on the Subject of Writing
 Letters.

LETTER I.

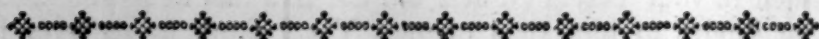
Sir WILLIAM TEMPLE to Mr. SIDNEY.

Hague, Dec. 13. N. S. 1675.

THO' I did not like the Date of your last Letter, yet I did all the rest very well. I thought *Lyons* a little too far off for one I wish always in my Reach: But when I remembered it was a Place of so great Trade, and where you told me yours had been very good in former Times, I was contented to think you spent your Time to your own Advantage and Satisfaction, tho' not to your Friends, by keeping at such a Distance. I was very well pleased t'other Day with a Visit made me by Captain *Fresheim*, who was much in your Praises; but I did not like that he should make you kinder to him than to me: Yet I think he deserves it of you, if all be true that he tells; for he pretends to think you, *le plus bel Homme, et le plus honnête Homme*, and I know not what more, that never came into my Head, as you know very well. However, I was mighty glad to hear him say, you had the best Health that could be; and that you looked as if you would keep it so, if you did not grow too kind to the Place and Company you lived in, or they to you. Yet, after what you tell me of the *French Air* and *Bourbon Waters*, I am much apter to wish myself there, than you in these Parts of the World; and tho' I hear News every Day from all Sides, yet I have not heard any so good, since I came upon this Scene, as what you send me, of the Effects I am like to feel by the Change whenever I come upon that where you are: They will be greater and better than any I can expect by being the busy Man, tho' *Je pourrois bien faire merveilles* with the Company I am joined to, and nobody knows to what Sir *Ellis* may raise another Ambassador, that has already raised one from the Dead. They begin to talk now of our going to *Nimeguen*, as if it were nearer than I thought it a Month ago: When we are there, it will be time enough to tell you what I think of our coming away. Hitherto I can only say, there are so many Splinters in the broken Bone, that the Patient must be very good, as well as the Surgeon, if it be a sudden Cure. And though I believe, both where you and I are, the Dispositions towards it

are very well, yet I doubt of those who are farther off on both Sides of us. For aught any-body knows, this great Dance may end as others used to do, every Man coming to the Place where they begun, or near it: Only, against all Reason and Custom, I doubt the poor *Swede*, that never led the Dance, is likeliest to pay the Fiddlers. I hope you know what passes at Home; at least 'tis Pity you should not: But if you don't, you shall not for me at this Distance; and since you talk of returning, the Matter is not great. In the mean time, pray let me know your Motions and your Health, since the Want of your Cypher keeps me from other Things you say you have a mind to tell me. I hear nothing of the Letter you say you have sent me by so good a Hand; so that all I can say to that is, that by whatsoever it comes, any will be welcome that comes from yours; because nobody loves you better than I, nor can be more than I am,

Yours, &c.



LETTER II.

Sir WILLIAM TEMPLE to the Bishop of ROCHESTER.

Nimeguen, May 21, N. S. 1677.

My LORD,

I AM unacquainted with Thanks or Praises, having so little deserved any, that I must judge of them rather by the Report of others, than by any Experience of my own. But, if by either I understand any thing of them, all the Charm or Value they have, arises from the Esteem a Man has of the Person that gives them, or the Belief, in some measure, of his own deserving them. The first of these Circumstances gave so great an Advantage to those I had lately the Honour of receiving from your Lordship in a Letter delivered me by Mr. *Dolben*, that the Want of the other was but necessary to allay the Vanity they might otherwise have given me. But where a Man can find no Ground to flatter himself upon the Thanks he receives, he begins to consider whether they are Praise or Reproach: And so, I am sure, I have Reason to do in the Acknowledgments your
Lordship

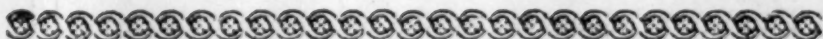
Lordship is pleased to make me of any Favours to your Son, who has never yet been so kind to me as to give me the least Occasion of obliging him. I confess I should have been glad to meet with any, tho' I do not remember so much as ever to have told him so; but if he has guessed it from my Countenance or Conversation, it is a Testimony of his observing much, and judging well; which are Qualities I have thought him guilty of, among those others that allow me to do him no Favour but Justice only in esteeming him. 'Tis his Fortune to have been beforehand with me, by giving your Lordship an Occasion to take Notice of me, and thereby furnishing me with a Pretence of entering into your Service; which gives him a new Title to any I can do him, and your Lordship a very just one to employ me upon all Occasions.

Notwithstanding your Lordship's favourable Opinion, I will assure you, 'tis well for me, that our Work here requires little Skill, and that we have no more but Forms to deal with in this Congress, while the Treaty is truly in the Field, where the Conditions of it are yet to be determined. *Fata viam invenient*: Which is all I can say of it; nor shall I increase your Lordship's present Trouble, beyond the Professions of my being,

My LORD,

Your LORDSHIP's most obedient

Humble Servant,



LETTER III.

Mr. POPE to the Bishop of ROCHESTER.

ONCE more I write to you as I promised, and this once I fear will be the last! The Curtain will soon be drawn between my Friend and me, and nothing left but to wish you a long good Night. May you enjoy a State of Repose in this Life, not unlike that Sleep of the Soul which some have believed is to succeed it, where we lie utterly forgetful of that World from which we are gone, and ripening for that to which we are to go. If you retain any Memory of the past, let it only imagine to you what has pleased you best; sometimes present a Dream of an absent Friend, or

bring you back an agreeable Conversation. But, upon the whole, I hope you will think less of the Time past than of the future; as the former has been less kind to you than the latter infallibly will be. Do not envy the World your Studies; they will tend to the Benefit of Men against whom you can have no Complaint, I mean of all Posterity: And perhaps at your Time of Life, nothing else is worthy your Care. What is every Year of a wise Man's Life but a Censure or Critique on the past? Those whose Date is the shortest, live long enough to laugh at one half of it: The Boy despises the Infant, the Man the Boy, the Philosopher both, and the Christian all. You may now begin to think your Manhood was too much a Puerility; and you'll never suffer your Age to be but a second Infancy. The Toys and Baubles of your Childhood are hardly now more below you, than those Toys of our riper and of our declining Years, the Drums and Rattles of Ambition, and the Dirt and Bubbles of Avarice. At this Time, when you are cut off from a little Society, and made a Citizen of the World at large, you should bend your Talents, not to serve a Party, or a few, but all Mankind. Your Genius should mount above the Mist in which its Participation and Neighbourhood with Earth long involved it: To shine abroad to Heaven, ought to be the Business and the Glory of your present Situation. Remember, it was at such a time that the greatest Lights of Antiquity dazzled and blazed the most; in their Retreat, in their Exile, or in their Death: But why do I talk of dazzling or blazing? it was then that they did Good, that they gave Light, and that they became Guides to Mankind.

Those Aims alone are worthy of Spirits truly great, and such I therefore hope will be yours. Resentment indeed may remain, perhaps cannot be quite extinguished, in the noblest Minds; but Revenge never will harbour there: Higher Principles than those of the first, and better Principles than those of the latter, will infallibly influence Men whose Thoughts and whose Hearts are enlarged, and cause them to prefer the Whole to any Part of Mankind, especially to so small a Part as one's single Self.

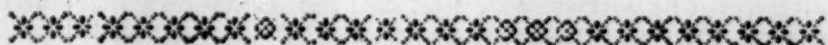
Believe me, my Lord, I look upon you as a Spirit entered into another Life, as one just upon the Edge of Immortality, where the Passions and Affections must be much more exalted, and where you ought to despise all little Views, and all mean Retrospects. Nothing is worth your looking back; and therefore look forward, and make (as you can) the
World

World look after you : But take Care that it be not with Pity, but with Esteem and Admiration.

I am with the greatest Sincerity, and Passion for your Fame as well as Happiness,

Yours, &c.

The Bishop of Rochester went into Exile the Month following, and continued in it till his Death, which happened at Paris on the fifteenth Day of Feb. in the Year 1732.



LETTER IV.

From Mr. GAY to Mr. F——.

Stanton-Harcourt, August 9, 1718.

THE only News you can expect to have from me here is News from Heaven ; for I am quite out of the World, and there is scarce any thing can reach me except the Noise of Thunder, which undoubtedly you have heard too. We have read in old Authors, of high Towers levelled by it to the Ground, while the humble Vallies have escaped : The only Thing that is Proof against it is the Laurel, which however I take to be no great Security to the Brains of modern Authors. But to let you see that the contrary to this often happens, I must acquaint you that the highest and most extravagant Heap of Towers in the Universe, which is in this Neighbourhood, stands still undefaced, while a Cock of Barley in our next Field has been consumed to Ashes. Would to God that this Heap of Barley had been all that had perished ! For unhappily beneath this little Shelter fate two much more constant Lovers than ever were found in Romance under the Shade of a Beech-Tree. *John Hewit* was a well-set Man of about five and twenty ; *Sarah Drew* might be rather called comely than beautiful, and was about the same Age : They had passed thro' the various Labours of the Year together with the greatest Satisfaction ; if she milked, 'twas his Morning and Evening Care to bring the Cows to her Hand. It was but last Fair that he bought her a Present of green Silk for her Straw-Hat ; and the Poesy on her Silver Ring was of his chusing. Their Love was the Talk of the whole Neighbourhood ; for Scandal never affirmed that

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they

they had any other Views than the lawful Possession of each other in Marriage. It was that very Morning that he had obtained the Consent of her Parents, and it was but till the next Week that they were to wait to be happy. Perhaps in the Intervals of their Work they were now talking of their Wedding-Cloaths, and *John* was suiting several Sorts of Poppies and Field-Flowers to her Complexion, to chuse her a Knot for the Wedding-Day. While they were thus busied (it was on the last of *July* between two and three in the Afternoon), the Clouds grew black, and such a Storm of Lightning and Thunder ensued, that all the Labourers made the best of their way to what Shelter the Trees and Hedges afforded. *Sarah* was frightened, and fell down in a Swoon on a Heap of Barley. *John*, who never separated from her, sat down by her Side, having raked together two or three Heaps, the better to secure her from the Storm. Immediately there was heard as loud a Crack as if Heaven had split asunder; every one was solicitous for the Safety of his Neighbour, and called to one another throughout the Field. No Answer being returned to those who called to our Lovers, they stepped to the Place where they lay; they perceived the Barley all in a Smoke, and then 'spied this faithful Pair, *John* with one Arm about *Sarah's* Neck, and the other held over her, as to skreen her from the Lightning. They were both struck in this tender Posture. *Sarah's* left Eyebrow was singed, and there appeared a black Spot on her Breast; her Lover was all over black, but not the least Signs of Life were found in either. Attended by their melancholy Companions, they were conveyed to the Town, and the next Day interred in *Stanton-Harcourt* Church-yard. My Lord *Harcourt*, at Mr. *Pope's* and my Request, has caused a Stone to be placed over them, upon Condition that we should furnish the Epitaph, which is as follows:

*When Eastern Lovers feed the Funeral Fire,
On the same Pile the faithful Pair expire;
Here pitying Heaven that Virtue mutual found,
And blasted both, that it might neither wound.
Hearts so sincere th' Almighty saw well pleas'd,
Sent his own Lightning, and the Victims seiz'd.*

But my Lord is apprehensive the Country People will not understand this; and Mr. *Pope* says he'll make one with something of Scripture in it, and with as little Poetry as *Hopkins* and *Sternhold*.

I am, &c.

L E T.

LETTER V.

CICERO to ATTICUS.

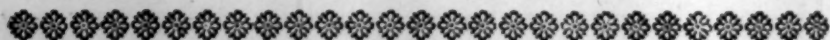
I Perceive from your Letter, and the Copy of my Brother's which you sent with it, a great Alteration in his Affection and Sentiments with regard to you: which affects me with all that Concern which my extreme Love for you both ought to give me; and with Wonder, at the same time, what could possibly happen either to exasperate him so highly, or to effect so great a Change in him. I had observed indeed before, what you also mistrusted at your leaving us, that he had conceived some great Disgust, which shocked and filled his Mind with odious Suspicions; which tho' I was often attempting to heal, and especially after the Allotment of his Province, yet I could neither discover that his Resentment was so great as it appears to be from your Letter, nor find, that what I said had so great an Effect upon him as I wished. I comforted myself however with a Persuasion, that he would contrive to see you at *Dyrrachium*, or some other Place in those Parts; and in that Case made no doubt but that all would be set right; not only by your Discourse and talking the Matter over between-yourselves, but by the very Sight and mutual Embraces of each other: For I need not tell you, who know it as well as myself, what a Fund of Good-nature and Sweetness of Temper there is in my Brother; and how apt he is both to take and to forgive an Offence. But it is very unlucky that you did not see him; since, by that Means, what others have artfully inculcated has had more Influence on his Mind, than either his Duty, or his Relation to you, or your old Friendship, which ought to have had the most. Where the Blame of all this lies, it is easier for me to imagine than to write; being afraid, lest, while I am excusing my own People, I should be too severe upon yours: For, as I take the Case to be, if those of his own Family did not make the Wound, they might at least have cured it. When we see one another again, I shall explain to you more easily the Source of the whole Evil, which is spread somewhat wider than it seems to be.——As to the Letter which he wrote to you from *Thessalonica*, and what you suppose him to have said of you to your Friends at *Rome*,
and

and on the Road, I cannot conceive what could move him to it. But all my Hopes of making this Matter easy depend on your Humanity. For if you will but reflect, that the best Men are often the most easy both to be provoked and to be appeased; and that this Quickness, if I may so call it, or Flexibility of Temper, is generally the Proof of a Good-nature; and, above all, that we ought to bear with one another's Infirmities or Faults, or even Injuries; this troublesome Affair, I hope, will be soon made up again. I beg of you that it may be so. For it ought to be my special Care, from the singular Affection which I bear to you, to do every thing in my Power, that all who belong to me may both love and be beloved by you. There was no Occasion for that Part of your Letter, in which you mention the Opportunities which you have omitted, of Employments both in the City and the Provinces; as well at other times, as in my Consulship. I am perfectly acquainted with the Ingenuity and Greatness of your Mind; and never thought that there was any other Difference between you and me, but in a different Choice and Method of Life: Whilst I was drawn, by a sort of Ambition, to the Desire and Pursuit of Honours; you, by other Maxims, in no wise blameable, to the Enjoyment of an honourable Retreat. But for the general Character of Probity, Diligence, and Exactness of Behaviour, I neither prefer myself nor any Man else to you. And as for Love to me, after my Brother and my own Family, I give you always the same Place. For I saw, and saw it in a Manner the most affecting, both your Solitude and your Joy, in all the various Turns of my Affairs; and was often pleased, as well with the Applause which you gave me in Success, as the Comfort which you administered in my Fears. And even now, in the Time of your Absence, I feel and regret the Loss, not only of your Advice in which you excel all, but of that familiar Chat with you, in which I used to take so much Delight. Where then shall I tell you that I most want you? in public Affairs (where it can never be permitted me to sit idle)? or in my Labours at the Bar? which I sustained before through Ambition, but now to preserve my Dignity: Or in my domestic Concerns? where, though I always wanted your Help before, yet since the Departure of my Brother I now stand the more in need of it. In short, neither in my Labours, nor Rest; neither Business, nor Retirement; neither in the Forum, nor at Home; neither in public nor private Affairs, can I live any longer

longer without your friendly Counsel, and endearing Conversation. We have often been restrained on both Sides, by a kind of Shame, from explaining ourselves on this Article; but I was now forced to it by that Part of your Letter, in which you thought fit to justify yourself and your Way of Life to me.——But to return to my Brother: In the present State of the Ill-humour which he expresses towards you, it happens however conveniently that your Resolution of declining all Employments abroad was declared and known long beforehand, both to me and to your other Friends; so that your not being now together cannot be charged to any Quarrel or Rupture between you, but to your Judgment and Choice of Life. Wherefore both this Breach in your Union will be healed again, and your Friendship with me remain for ever inviolable, as it has hitherto been.—We live here in an infirm, wretched, and tottering Republic: for you have heard, I guess, that our Knights are now almost disjoined again from the Senate. The first Thing which they took amiss was, the Decree for calling the Judges to Account who had taken Money in *Claudius's* Affair. I happened to be absent when it passed; but hearing afterwards that the whole Order resented it, tho' without complaining openly, I chid the Senate, as I thought, with great Effect; and, in a Cause not very modest, spoke forcibly and copiously. They have now another curious Petition, scarce fit to be endured; which yet I not only bore with, but defended. The Company who hired the *Asiatic* Revenues of the *Censors* complained to the Senate, that, through too great an Eagerness, they had given more for them than they were worth, and begged to be released from the Bargain. I was their chief Advocate, or rather indeed the Second; for *CRASSUS* was the Man who put them upon making this Request. The Thing is odious and shameful, and a public Confession of their Rashness: But there was great Reason to apprehend, that if they should obtain nothing, they would be wholly alienated from the Senate; so that this Point also was principally managed by me. For, on the First and Second of *December*, I spoke a great deal on the Dignity of the two Orders, and the Advantages of the Concord between them, and was heard very favourably in a full House. Nothing however is yet done; but the Senate appears well disposed. For *METELLUS*, the Consul elect, was the only one who spoke against us; tho' that Hero of ours, *CATO*, was going also to speak, if the Shortness of the Day had not prevented him.

Thus,

Thus, in Pursuit of my old Measures, I am supporting, as well as I can, that Concord which my Consulship had cemented: But since no great Stress can now be laid upon it, I have provided myself another Way, and a sure one, I hope, of maintaining my Authority; which I cannot well explain by Letter, yet will give you a short Hint of it. I am in strict Friendship with POMPEY. I know already what you say—and will be upon my Guard, as far as Caution can serve me; and give you a farther Account some other time of my present Conduct in Politics. You are to know, in the meanwhile, that LUCCEIUS designs to sue directly for the Consulship; for he will have, it is said, but two Competitors. CÆSAR, by Means of ARRIUS, proposes to join with him; and BIBULUS, by PISO's Mediation, thinks of joining with CÆSAR. Do you laugh at this? Take my Word for it, it is no laughing Matter. What shall I write farther? What? there are many Things; but for another Occasion. If you would have us expect you, pray let me know it. At present I shall beg only modestly, what I desire very earnestly, that you would come as soon as possible.



LETTER VI.

MATIUS to CICERO.

YOUR Letter gave me great Pleasure, by letting me see you retain still that favourable Opinion of me, which I had always hoped and wished; and though I had never indeed any Doubt of it, yet, for the high Value that I set upon it, I was very solicitous that it should remain always inviolable. I was conscious to myself that I had done nothing which could reasonably give Offence to any honest Man; and did not imagine, therefore, that a Person of your great and excellent Accomplishments could be induced to take any without Reason, especially against one who had always professed, and still continued to profess, a sincere Good-will to you. Since all this then stands just as I wish it, I will now give an Answer to those Accusations, from which you, agreeably to your Character,

ter, out of your singular Goodness and Friendship, have so often defended me. I am no Stranger to what has been said of me by certain Persons, since CÆSAR's Death. They call it a Crime in me, that I am concerned for the Loss of an intimate Friend, and sorry that the Man whom I loved met with so unhappy a Fate. They say, that our Country ought to be preferred to any Friendship, as if they had already made it evident, that his Death was of Service to the Republic. But I will not deal craftily; I own myself not to be arrived at that Degree of Wisdom; nor did I yet follow CÆSAR in our late Dissentions, but my Friend; whom, though displeased with the Thing, I could not desert: For I never approved the Civil War, or the Cause of it, but took all possible Pains to stifle it in its Birth. Upon the Victory therefore of a familiar Friend, I was not eager to advance or to enrich myself: an Advantage which others, who had less Interest with him than I, abused to great Excess. Nay, my Circumstances were even hurt by CÆSAR's Law; to whose Kindness the greatest Part of those who now rejoice at his Death owed their very Continuance in the City. I solicited the Pardon of the Vanquished with the same Zeal as if it had been for myself. Is it possible therefore for me, who laboured to procure the Safety of all, not to be concerned for the Death of him from whom I used to procure it? especially when the very same Men who were the Cause of making him odious were the Authors also of destroying him. But I shall have Cause, they say, to repent, for daring to condemn their Act. Unheard-of Insolence! that it should be allowed to some to glory in a wicked Action, yet not to others even to grieve at it without Punishment! But this was always free even to Slaves, to fear, rejoice, and grieve by their own Will, not that of another; which yet these Men, who call themselves the Authors of Liberty, are endeavouring to extort from us by the Force of Terror. But they may spare their Threats: For no Danger shall terrify me from performing my Duty and the Offices of Humanity; since it was always my Opinion, that an honest Death was never to be avoided, often even to be sought. But why are they angry with me, for wishing only that they may repent of their Act? I wish that all the World may regret CÆSAR's Death. But I ought, say they, as a Member of Civil Society, to wish the Good and Safety of the Republic. If my past Life and future Hopes do not already prove that I wish it, without my saying so, I will not pretend to evince it by Argument. I beg
of

of you therefore, in the strongest Terms, to attend to Facts rather than Words; and if you think it the most useful to one in my Circumstances, that what is right should take place, never imagine that I can have any Union or Commerce with ill-designing Men. I acted the same Part in my Youth, where to mistake would have been pardonable; shall I then undo it all again, and renounce my Principles in my declining Age? No; it is my Resolution to do nothing that can give any Offence; except it be when I lament the cruel Fate of a dear Friend and illustrious Man. If I were in indifferent Sentiments, I would never disown what I was doing; lest I should be thought, not only wicked for pursuing what was wrong, but false and cowardly for dissembling it. But I undertook the Care of the Shows which young CÆSAR exhibited for the Victory of his Uncle. This was an Affair of private, not of public Duty. It was what I ought to have performed to the Memory and Honour of my dead Friend; and what I could not therefore deny to a Youth of the greatest Hopes, and so highly worthy of CÆSAR.—But I go also often to the Consul ANTONY's, to pay my Compliments; yet you will find those very Men go oftener to ask and receive Favours, who reflect upon me for it, as disaffected to my Country. But what Arrogance is this? When CÆSAR never hindered me from visiting whom I would, even those whom he did not care for; that they, who have deprived me of him, should attempt by their Cavils to debar me from placing my Esteem where I think proper! But I am not afraid, that either the Modesty of my Life should not be sufficient to confute all false Reports of me for the future, or that they who do not love me for my Constancy to CÆSAR would not chuse to have their Friends resemble me, rather than themselves. For my own Part, if I could have my Wish, I would spend the Remainder of my Days in quiet at *Rhodes*; but, if any Accident prevent me, will live in such a manner at *Rome*, as always to desire that what is right may prevail. I am greatly obliged to our Friend TREBATIUS, for giving me this Assurance of your sincere and friendly Regard to me, and for making it my Duty to respect and observe a Man whom I have esteemed always before with Inclination. Take Care of your Health, and preserve me in your Affection.

LETTER VII.

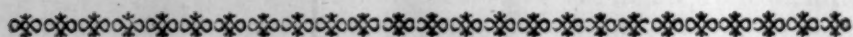
PLINY to TACITUS.

YOUR Request that I would send you an Account of my Uncle's Death, in order to transmit a more exact Relation of it to Posterity, deserves my Acknowledgments: for if this Accident shall be celebrated by your Pen, the Glory of it, I am well assured, will be rendered for ever illustrious. And notwithstanding he perished by a Misfortune, which, as it involved at the same time a most beautiful Country in Ruins, and destroyed so many populous Cities, seems to promise himself an everlasting Remembrance; notwithstanding he has himself composed many and lasting Works; yet, I am persuaded, the mentioning of him in your immortal Writings will greatly contribute to eternize his Name. Happy I esteem those to be, whom Providence has distinguished with the Abilities either of doing such Actions as are worthy of being related, or of relating them in a Manner worthy of being read; but doubly happy are those who are blessed with both these uncommon Talents: In the Number of which my Uncle, as his own Writings and your History will evidently prove, may justly be ranked. It is with extreme Willingness, therefore, I execute your Commands; and should indeed have claimed the Task if you had not enjoined it. He was at that Time with the Fleet under his Command at *Misenum*. On the 23d of *August*, about One in the Afternoon, my Mother desired him to observe a Cloud, which appeared of a very unusual Size and Shape. He had just returned from taking the Benefit of the Sun, and, after bathing himself in cold Water, and taking a slight Repast, was retired to his Study: He immediately arose, and went out upon an Eminence, from whence he might more distinctly view this very uncommon Appearance. It was not at that Distance discernible from what Mountain this Cloud issued; but it was found afterwards to ascend from *Mount Vesuvius*. I cannot give you a more exact Description of its Figure, than by resembling it to that of a Pine-Tree, for it shot up a great Height in the Form of a Trunk, which extended itself at the Top into a sort of Branches: occasioned, I imagine, either by a sudden Gust of Air that impelled it, the Force of which decreased as it advanced upwards; or the Cloud itself, being pressed back again by its

own Weight, expanded in this Manner: It appeared sometimes bright, and sometimes dark and spotted, as it was more or less impregnated with Earth and Cinders. This Extraordinary Phænomenon excited my Uncle's philosophical Curiosity to take a nearer View of it. He ordered a light Vessel to be got ready; and gave me the Liberty, if I thought proper, to attend him. I rather chose to continue my Studies; for, as it happened, he had given me an Employment of that Kind. As he was coming out of the House, he received a Note from *Reclina*, the Wife of *Bassus*, who was in the utmost Alarm at the imminent Danger which threatened her; for her Villa being situated at the Foot of Mount *Vesuvius*, there was no Way to escape but by the Sea; she earnestly entreated him therefore to come to her Assistance. He accordingly changed his first Design, and what he began with a philosophical, he pursued with an heroical Turn of Mind. He ordered the Gallies to put to Sea, and went himself on board, with an Intention of assisting, not only *Reclina*, but several others; for the Villas stand extremely thick upon that beautiful Coast: When, hastening to the Place from whence others fled with the utmost Terror, he steered his direct Course to the Point of Danger, and with so much Calmness and Presence of Mind, as to be able to make and dictate his Observations upon the Motion and Figure of that dreadful Scene. He was now so near the Mountain, that the Cinders, which grew thicker and hotter the nearer he approached, fell into the Ships, together with Pumice-stones, and black Pieces of burning Rock: They were likewise in Danger, not only of being aground by the sudden Retreat of the Sea, but also from the vast Fragments which rolled down from the Mountain, and obstructed all the Shore. Here he stopped, to consider whether he should return back again; to which the Pilot advising him, *Fortune*, saith he, *befriends the Brave*; carry me to *Pomponianus*. *Pomponianus* was then at *Stabiae*, separated by a Gulph, which the Sea, after several insensible Windings, forms upon that Shore. He had already sent his Baggage on board; for though he was not at that Time in actual Danger, yet being within the View of it, and indeed extremely near, if it should in the least increase, he was determined to put to Sea as soon as the Wind should change. It was favourable, however, for carrying my Uncle to *Pomponianus*, whom he found in the greatest Consternation. He embraced him with Tenderness, encouraging and exhorting him to keep up his Spirits; and the more to dissipate his Fears, he ordered, with an Air of Unconcern, the Baths

to be got ready: when, after having bathed, he sat down to Supper with great Chearfulness, or at least (what is equally heroic) with all the Appearance of it. In the mean while the Eruption from Mount *Vesuvius* flamed out from several Places with much Violence, which the Darkness of the Night continued to render still more visible and dreadful. But my Uncle, in order to soothe the Apprehensions of his Friend, assured him it was only the burning of the Villages, which the Country People had abandoned to the Flames: After this he retired to Rest: and, it is most certain, he was so little discomposed as to fall into a deep Sleep; for, being pretty fat, and breathing hard, those who attended without actually heard him snore. The Court which led to his Apartment, being now almost filled with Stones and Ashes, if he had continued there any time longer, it would have been impossible for him to have made his Way out: it was thought proper therefore to awaken him. He got up, and went to *Pomponianus* and the rest of his Company, who were not unconcerned enough to think of going to Bed. They consulted together whether it would be most prudent to trust to the Houses, which now shook from Side to Side with frequent and violent Concussions; or fly to the open Fields, where the calcined Stones and Cinders, tho' light indeed, yet fell in large Showers, and threatened Destruction. In this Distress they resolved for the Fields, as the less dangerous Situation of the two: A Resolution, which, while the rest of the Company were hurried into by their Fears, my Uncle embraced upon cool and deliberate Consideration. They went out then, having Pillows tied upon their Heads with Napkins; and this was their whole Defence against the Storm of Stones that fell round them. Tho' it was now Day every-where else, with them it was darker than the most obscure Night, excepting only what Light proceeded from the Fire and Flames. They thought proper to go down farther upon the Shore, to observe if they might safely put out to Sea, but they found the Waves still run extremely high and boisterous. There my Uncle having drunk a Draught or two of cold Water threw himself down upon a Cloth which was spread for him, when immediately the Flames, and a strong Smell of Sulphur, which was the Forerunner of them, dispersed the rest of the Company, and obliged him to arise. He raised himself up with the Assistance of two of his Servants, and instantly fell down dead; suffocated, as I conjecture, by some gross and noxious Vapour, having always had weak Lungs, and frequently subject to a Difficulty of Breathing. As soon as it was light again,

which was not till the third Day after this melancholy Accident, his Body was found intire, and without any Marks of Violence upon it, exactly in the same Posture that he fell, and looking more like a Man asleep than dead. During all this Time my Mother and I were at *Misenum*. But as this has no Connection with your History, so your Inquiry went no farther than concerning my Uncle's Death; with that therefore I will put an End to my Letter: Suffer me only to add, that I have faithfully related to you what I was either an Eye-witness of myself, or received immediately after the Accident happened, and before there was Time to vary the Truth. You will chuse out of this Narrative such Circumstances as shall be most suitable to your Purpose; for there is a great Difference between what is proper for a Letter, and an History; between writing to a Friend, and writing to the Public. Farewel.



LETTER VIII.

PLINY to ROMANUS FIRMUS.

AS you are my Countryman, my Schoolfellow, and the earliest Companion of my Youth; as there was the strictest Friendship between my Mother and Uncle, and your Father; a Happiness which I also enjoyed as far as the great Inequality of our Ages would admit: can I fail (biased as I am towards your Interest by so many strong and weighty Reasons) to contribute all in my Power to the Advancement of your Dignity? The Rank you bear in our Province as a *Decurio* is a Proof that you are possessed at least of a hundred thousand *Sesterces*; but that we may also have the Pleasure of seeing you a *Roman Knight*, give me leave to present you with three hundred thousand, in order to make up the Sum requisite to intitle you to that Dignity. The long Acquaintance we have had, leaves me no room to doubt you will ever be forgetful of this Instance of my Friendship. And I need not advise you (what if I did not know your Disposition I should) to enjoy this Honour with the Modesty that becomes one who received it from me; for the Dignity we possess by the good Offices of a Friend is a Kind of sacred Trust, wherein we have his Judgment, as well as our own Character to maintain, and therefore to be guarded with peculiar Attention. Farewel.

LET-

LETTER IX.

PLINY to MAXIMUS.

I THINK I may claim a Right to ask the same Services of you for my Friends, as I would offer to yours if I were in your Station. *Arrianus Maturius* is a Person of great Eminence among the *Altinates*. When I call him so, it is not with respect to his Fortunes (which however are very considerable); it is in view to the Purity, the Integrity, the Prudence, and the Gravity of his Manners. His Counsel steers me in my Affairs, and his Judgment directs me in my Studies; for Truth, Honour, and Knowledge, are the shining Qualities which mark his Character. He loves me (and I cannot express his Affection in stronger Terms) with a Tenderness equal to yours. As he is a Stranger to Ambition, he is contented with remaining in the *Equestrian* Order, when he might easily have advanced himself into a higher Rank. It behoves me however to take care his Merit be rewarded with the Honours it deserves: and I would fain without his Knowledge or Expectation, and probably too contrary to his Inclination, add to his Dignity. The Post I would obtain for him should be something very honourable, and yet attended with no Trouble. I beg, when any thing of that Nature offers, you would think of him; it will be an Obligation which both he and I shall ever remember with the greatest Gratitude. For, tho' he has no aspiring Wishes to satisfy, he will be as sensible of the Favour as if he had received it in consequence of his own Desires. Farewel.

LETTER X.

PLINY to CATILIUS.

I Accept of your Invitation to Supper; but I must make this Agreement beforehand, that you dismiss me soon, and treat me frugally. Let our Entertainment abound only in philosophical Conversation, and even that too with Moderation. There are certain Midnight Parties, which *Cato* himself could not safely fall in with; tho' I must confess at the same

time, that *J. Caesar*, when he reproaches him upon that Head, exalts the Character he endeavours to expose; for he describes those Persons who met this reeling Patriot, as blushing when they discovered who he was; and adds, *you would have thought that Cato had detected them, and not they Cato*. Could he place the Dignity of *Cato* in a stronger Light than by representing him thus venerable even in his Cups? As for ourselves nevertheless, let Temperance not only deck our Table, but regulate our Hours: for we are not arrived at so high a Reputation, that our Enemies cannot censure us but to our Honour. Farewel.

LETTER XI.

PLINY to TITIANUS.

WHAT are you doing? And what do you purpose to do? As for myself, I pass my Life in the most agreeable, that is, in the most disengaged manner imaginable. I do not find myself, therefore, in the Humour to write a long Letter, tho' I am to read one. I am too much a Man of Pleasure for the former, and just idle enough for the latter: for none are more indolent, you know, than the Voluptuous, or have more Curiosity than those who have nothing to do. Farewel.

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## LETTER XII.

To Monsieur DE LIONE at Rome.

S I R,

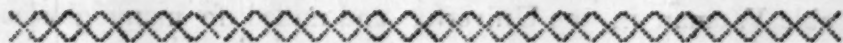
THO' no Man treated me so ill at *Rome* as yourself; and I must place to your Account some of the most disagreeable Hours I passed in all my Travels; yet be assured I never saw any Person in my Life that I had so strong an Inclination to revisit, or to whom I would more willingly do the best Services in my Power. It is not very usual to gain a Man's Friendship, at the same time that one ruins his For-

tune.

tune. This Success however you have had; and your Advantage was so much more considerable than mine in all respects, that I had not the Power to defend myself against you in either of those Instances, but you won both my Money and my Heart at the same time. If I am so happy as to find a Place in yours, I shall esteem that Acquisition as an Overbalance to all my Losses, and shall look upon myself as greatly a Gainer in the Commerce that passed between us. Tho' your Acquaintance, indeed, hath cost me pretty dear, I do not by any means think I have paid its full Value, and I would willingly part with the same Sum to meet with a Man in *Paris* of as much Merit as yourself. This being the literal Truth, you may be well assured, Sir, that I shall omit nothing in my Power to preserve an Honour I so highly esteem; and that I shall not very easily give up a Friend whom I purchased at so dear a Price. I have accordingly performed every thing you desired in the Affair about which you wrote to me; as I shall obey you with the same Punctuality in every other Instance that you shall command me. For I am, with all the Affection that I ought,

Sir, Your, &c.

VOITURE.



### LETTER XIII.

To the Marchioness DE RAMBOUILLET.

MADAM,

SINCE I had the Honour of seeing you, I have suffered greater Pains than I am able to express. Still, however, I did not forget to execute your Commands; and in passing by *Espernay* I attended, as your Proxy, the Funeral of the Mareschal *Strozzi*. His Tomb appeared to me so magnificent, that in the Condition I was in, and finding myself ready conveyed thither, I had a most violent Inclination to be buried with him. But they made some Difficulty of complying with my Proposal, as they found I had still some remaining Warmth left in me. I resolved therefore to have my



Body transported to *Nancy*; where, at length, Madam, it is arrived, but so lean and worn out, that, believe me, many a Corpse is interred that is much less so. Tho' I have been already here these eight Days, I have not yet been able to recover my Strength; and the longer I repose, the more I find myself fatigued. In truth, I perceive such an infinite Difference between that Fortnight which I had the Honour of passing with you, and the same Space of Time which I have spent since, that I am astonished how I have been able to support it; and I look upon myself and Monsieur *Margonne*, who teaches School in this Place, as two the most wretched Instances in the World of the Inconstancy of Fortune. I am every Day attacked with Shortness of Breath and fainting Fits, without being able to meet with the least Drop of Treacle; and I am more indisposed than ever I was in all my Life, in a Place where I cannot be supplied with a proper Medicine. Thus, Madam, I much fear that *Nancy* will be as fatal to me as it was to the Duke of *Bourgogne*; and that after having, like him, escaped the greatest Dangers, and resisted the most powerful Enemies, I am destined to end my Days in this Town. I shall struggle however against that Misfortune as much as possible; for I must confess I am extremely unwilling to leave the World, when I reflect that I shall by that means never have the Honour of seeing you again. I should indeed exceedingly regret, that after having escaped Death by the Hands of the most amiable Woman in the Universe, and missed so many glorious Occasions of expiring at your Feet; I should come here at last to be buried three hundred Leagues from your Presence, and have the Mortification, when I rise again, of finding myself once more in *Lorrain*.

I am, MADAM,

Your, &c.

VOITURE.

LET-

## LETTER XIV.

To Madame DE LA CHETARDIE.

MADAM,

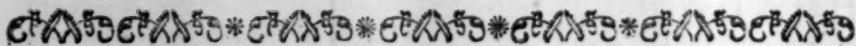
I CANNOT taste of your Bounty without expressing at the same time my Gratitude. You have feasted me indeed these four Days in the most delicious Manner; and either there is no Pleasure in the Palate, or your Cheeses afford a Relish of the most exquisite Kind. They are not merely an artful Preparation of Cream; they are the Effects of a certain Quintessence hitherto unknown; they are I know not what kind of wonderful Production, which, with a most delicious Sweetness, preserve at the same time a most pleasing Poignancy. Undoubtedly, Madam, you must be the Favourite of Heaven, since you are thus blessed with a Land that flows with Milk and Honey. It was in this Manner, you know, that Providence formerly regarded its chosen People; and such were once the Riches of the Golden Age. But methinks you ought to limit the Luxury of your Table to Rarities of this kind, and not to look out for any other Abundance in a Place which affords such charming Repasts. You ought long since to have purified your Kitchen, and broke every Instrument of savage Destruction; for would it not be a Shame to live by Cruelty and Murder, in the Midst of such innocent Provisions? I am sure at least I can never esteem them too much, nor sufficiently thank you for your Present. It is in vain you would persuade me, that it was the Work of one of your Dairy Maids; such coarse Hands could never be concerned in so curious a Production. Most certainly the Nymphs of *Vienne* were engaged in the Operation; and it is an Original of their making, which you have sent me as a Rarity. If this Thought appears to you poetical, you must remember that the Subject is so too; and might with great Propriety make Part of an Eclogue, or enter into some Corner of a Pastoral. But I am by no means an Adept in the Art of Rhyming; besides, it is necessary I should quit the Language of Fable, to assure you in very true and very serious Prose, I so highly Honour your Virtue, that I should always think I owed you much, though I had never

received any Favour at your Hands; and if you were not my Benefactress, I should nevertheless be always,

MADAM,

Your, &c.

BALZAC.



## L E T T E R   X V .

*To the Mayor of* A N G O U L E M E .

S I R,

**I** Persuade myself that the Request which the Bearer of this will make to you on my Behalf will not be disagreeable. It concerns indeed the public Interest as well as mine; and I know you are so punctual in the Functions of your Office, that to point out to you a Grievance is almost the same as to redress it. At the Entrance of the *Fauxbourg Lomeau*, there is a Way of which one cannot complain in common Terms. It would draw Imprecations from a Man that never used a stronger Affirmative in all his Life than *yea verily*; and raise the Indignation even of the mildest Father of the Oration. It was but the Day before Yesterday that I had like to have been lost in it, and was in imminent Danger of being cast away in a terrible Slough. Had it indeed been in the open Sea, and in a shattered Vessel, exposed to the Fury of the Winds and Waves, the Accident would have been nothing extraordinary; but to suffer such a Misfortune upon Land, in a Coach, and during the very Time of your Mayoralty, would have been beyond all Credit or Consolation. Two or three Words of an Order from you would put this Affair in a better Situation, and at the same Time oblige a whole County. Let me hope, then, that you will give Occasion to those *without* your District to join in Applauses with your own Citizens; and not suffer your Province, which you have embellished in so many other Parts, to be disfigured in this by so vile a Blemish. But, after the Interest of the Public has had its due Weight with you, will you not allow me to have some Share in your Consideration, and  
be

be inclined to favour a Person who is thought not be ungrateful for the good Offices he receives? There are who will say even more; and assure you that you have an Opportunity of extending your Reputation beyond the Bounds of your Province, and of making the Remembrance of your Mayoralty last longer than its annual Period. I shall learn by the Return of the Bearer, if you think my Friends speak the Truth; and whether you have so high an Opinion of the Acknowledgment I shall make to you, as to comply with the Request I have already tendered: To which I have only to add the Assurance of my being, with great Sincerity,

S I R,

Your, &c.

B A L Z A C.



L E T T E R XVI.

*To a young Gentleman at School.*

DEAR MASTER F.

I AM glad to hear you are well fixed in your new School. I have now before me the three last Letters which you sent your Father, and, at his Desire, am going to give you a few Directions concerning Letter-writing, in hopes they may be of some small Service towards improving your Talent that way.

When you sit down to write, call off your Thoughts from every other Thing but the Subject you intend to handle: Consider it with Attention, place it in every Point of View, and examine it on every Side before you begin. By this means you will lay a Plan of it in your Mind, which will rise like a well-contrived Building, beautiful, uniform, and regular: Whereas, if you neglect to form to yourself some Method of going through the Whole, and leave it to be conducted by giddy Accident, your Thoughts upon any Subject can never appear otherwise than as a mere Heap of Confusion. Consider, you are now to form a Stile, or, in other Words, to learn the Way of expressing what you think; and your doing



ing it well or ill for your whole Life will depend, in a great measure, upon the Manner you fall into at the Beginning. It is of great Consequence, therefore, to be attentive and diligent at first; and an expressive, genteel, and easy Manner of Writing, is so useful, so engaging a Quality, that whatever Pains it costs, it amply will repay. Nor is the Task so difficult as you at first may think; a little Practice and Attention will enable you to lay down your Thoughts in Order; and I from time to time will instruct and give you Rules for so doing. But, on your Part, I shall expect Observance and Application, without which nothing can be done.

As to the Subjects, you are allowed in this Way the utmost Liberty. Whatsoever has been done, or thought, or seen, or heard; your Observations on what you know, your Inquiries about what you do not know; the Time, the Place, the Weather, every thing around stands ready for your Purpose; and the more Variety you intermix, the better. Set Discourses require a Dignity or Formality of Style suitable to the Subject; whereas Letter-writing rejects all Pomp of Words, and is most agreeable when most familiar. But, tho' lofty Phrases are here improper, the Style must not therefore sink into Meanness: And to prevent its doing so, an easy Complaisance, an open Sincerity, and unaffected Good-nature, should appear in every Place. A Letter should wear an honest, chearful Countenance, like one who truly esteems, and is glad to see his Friend; and not look like a Fop admiring his own Dress, and seemingly pleased with nothing but himself.

Express your Meaning as briefly as possible; long Periods may please the Ear, but they perplex the Understanding. Let your Letters abound with Thoughts more than Words. A short Style, and plain, strikes the Mind, and fixes an Impression; a tedious one is seldom clearly understood, and never long remember'd. But there is still something requisite beyond all this, towards the writing a polite and agreeable Letter, such as a Gentleman ought to be distinguished by; and that is, an Air of Good-breeding and Humanity, which ought constantly to appear in every Expression, and give a Beauty to the Whole. By this, I would not be supposed to mean, overstrained or affected Compliments, or any thing that way tending; but an easy, genteel, and obliging Manner of Address, a Choice of Words which bear the most civil Meaning, and a generous and good-natured Complaisance.

What I have said of the Style of your Letters, is intended as a Direction for your Conversation also, of which your

Care is necessary, as well as of your Writing. As the Profession allotted for you will require you to speak in public, you should be more than ordinary solicitous how to express yourself, upon all Occasions, in a clear and proper Manner; and to acquire an Habit of ranging your Thoughts readily, in apt and handsome Terms; and not blunder out your Meaning, or be ashamed to speak it for want of Words. Common Conversation is not of so little Consequence as you may imagine; and if you now accustom yourself to talk at random, you will find it hereafter not easy to do otherwise.

I wish you good Success in all your Studies, and am certain your Capacity is equal to all your Father's Hopes. Consider, the Advantage will be all your own; and your Friends can have no other Share of it, but the Satisfaction of seeing you a learned and a virtuous Man.

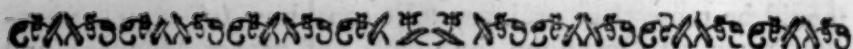
I am,

S I R,

your affectionate Friend,

and humble Servant,

B.



# ARITHMETIC.

**A**RITHMETIC is the Art of Numbering ; or, that Part of the Mathematics which considers the Powers and Properties of Numbers, and teaches how to compute or calculate truly, and with Expedition and Ease. Arithmetic consists chiefly in the four great Rules, or Operations; of *Addition*, *Subtraction*, *Multiplication*, and *Division*. It is true; for the facilitating and expediting of Calculations, Mercantile, Astronomical, &c. divers other useful Rules have been contrived ; as, the Rule of Proportion, of Allegation, of false Position, Extraction of Square and Cube Roots, Progression, Fellowship, Interest, Barter, Rebate, Reduction, Tare and Tret, &c. But these are only various Applications of the first four Rules ; and, as they are the Foundation of all Computation, an Introduction to them seems not to be improper in this Place ; which we shall therefore give in the most short, plain, and familiar Manner.

## NUMERATION

**I**S the Art of estimating or pronouncing any Number, or Series of Numbers.

The Characters whereby Numbers are ordinarily expressed, are the ten following ones, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. It being the Law of the common *Numeration*, that when you are arrived at ten, you begin again, and repeat as before ; only expressing the Number of Tens.

That the ten numerical Notes may express not only Units, but also Tens or Decads, Hundreds or Centuries, Thousands, &c. they have a local Value given them ; so as that, when either alone, or when placed in the Right-hand Place, they denote Units ; in the second Place, Tens ; in the third, Hundreds ; in the fourth, Thousands.

Now, to express any written Number, or assign the proper Value to each Character, divide the proposed Number by Comma's into Classes, allowing three Characters in each Class ;  
beginning

beginning at the Right-hand. Over the Right-hand Figure of the third Class, add a small Mark, or transverse Line; over the Right-hand Figure of the fifth Class, add two Marks, or transverse Lines; over that of the seventh, three, &c. The Number to the Left of the first Comma, expresses by thousands; that which has over it the first transverse Line, expresses by millions; that with two, by billions; that with three, by trillions, &c. Lastly, the Left-hand Character of each Class, expresses by hundreds; the middle one, by tens; and the Right-hand one, by units. Thus will the Numeration be effected.

*E. gr.* The following Numbers, 2<sup>'''</sup>, 125,473<sup>''</sup>, 613,578<sup>'</sup>, 432,597, is thus expressed or read: Two trillions, one hundred twenty-five millions of billions, four hundred seventy-three billions, six hundred thirteen thousand of millions, and five hundred seventy-eight millions, four hundred and thirty-two thousand, five hundred and ninety-seven.

And thus it appears, that by Numeration we learn the different Value of Figures, by their different Places; and, of consequence, to read or write any Sum, or Number.

The T A B L E.

|           |              |           |
|-----------|--------------|-----------|
| 9         | Units.       | 1         |
| 90        | Tens.        | 12        |
| 900       | Hundreds.    | 123       |
| 9000      | Thousands.   | 1234      |
| 90000     | X Thousands. | 12345     |
| 900000    | C Thousands. | 123456    |
| 9000000   | Millions.    | 1234567   |
| 90000000  | X Millions.  | 12345678  |
| 900000000 | C Millions.  | 123456789 |

From this Table may be observed:

1. The Names of the several Places, *viz.* Units, Tens, Hundreds, &c. which proceed (increasing by a tenfold Proportion) from the Right-hand to the Left.

2. That every Figure hath two Values; one in itself; the other from the Place it stands in. Thus, on the Left-side of the Table, the Figure 9 in the upper Line, standing in the Unit's place, is only nine; but in the second Line, being removed into the place of Tens, becomes ninety; and in the third Line is nine hundred, &c.

3. That



3. That tho' a Cypher is nothing in itself, yet it gives Value to other Figures, by removing them into higher Places.

All which being very obvious, I proceed to

### A D D I T I O N,

**W**HICH is the first of the four fundamental Rules, or Operations in *Arithmetic*. *Addition* consists in finding the Amount of several Numbers, or Quantities, severally added one to another.—Or, *Addition* is the Invention of a Number, from two or more homogeneous ones given, which is equal to the given Numbers taken jointly together.

The Numbers, thus found, is called the *Sum* or Aggregate of the Numbers given.

The *Addition* of simple Numbers is easy. Thus it is readily perceived that 7 and 9 make 16; and 11 and 15 make 26.

In longer, or compounded Numbers, the Business is performed by writing the given Numbers in a Row downwards; homogeneous under homogeneous, *i. e.* Units under Units; Tens under Tens, &c. and singly collecting the Sums of the respective Columns.

To do this, we begin at the Bottom of the outmost Row or Column to the Right; and if the Amount of this Column do not exceed 9, we write it down at the Foot of the same Column: If it do exceed 9, the Excess is only to be wrote down, and the rest reserved to be carried to the next Row, and added thereto; as being of the same Kind of Denomination.

Suppose, *e. gr.* the Numbers 1357 and 172 were given to be added; write either of them, *v. gr.* 172, under the other, 1357; so, as the Unit of the one, *viz.* 2, stands under the Unit of the other, *viz.* 7; and the other Numbers of the one, under the correspondent ones of the other, *viz.* the Place of Tens under Tens, as 7 under 5; and that of Hundreds, *viz.* 1 under the Place of Hundreds of the other, 3.—Then, beginning, say, 2 and 7 make 9; which write underneath; also 7 and 5 make 12; the last of which two Numbers, *viz.* 2, is to be written, and the other 1 reserved in your Mind to be added to the next Row, 1 and 3: Then say, 1 and 1 make 2, which added to 3 make 5; this write underneath, and there will remain only 1, the first Figure of the upper Row of Numbers,

bers, which also must be writ underneath; and thus you have the whole Sum, viz. 1529.

So, to add the Numbers 87899—13403—1920—885 into one Sum, write them one under another, so as all the Units make one Column, the Tens another, the Hundreds a Third, and the Place of Thousands a fourth, and so on.—Then say, 5 and 3 make 8; 8 and 9 make 17; write 7 underneath, and the one add to the next Rank; saying 1 and 8 make 9, 9 and 2 make 11, 11 and 9 make 20; and having writ the 0 underneath, say again, 2 and 8 make 10, 10 and 9 make 19, 19 and 4 make 23, 23 and 8 make 31; then reserving 3, write down 1 as before, and say again, 3 and 1 make 4, 4 and 3 make 7, 7 and 7 make 14; wherefore write 4 underneath: And lastly, say 1 and 1 make 2, 2 and 8 make 10, which in the last Place write down, and you will have the Sum of them all.

|        |
|--------|
| 87899  |
| 13403  |
| 1920   |
| 885    |
| 104107 |

*ADDITION of Numbers of different Denominations*, for instance, of Pounds, Shillings, and Pence, is performed by adding or summing up each Denomination by itself, always beginning with the lowest; and if, after the *Addition*, there be enough to make one of the next higher Denomination, for instance, Pence enough to make one or more Shillings; they must be added to the Figures of that Denomination, that is, to the Shillings; only reserving the odd remaining Pence to be put down in the Place of Pence.—And the same Rule is to be observed in Shillings with regard to Pounds.

For an instance, 5 Pence and 9 Pence make 14 Pence; now in 14 there is one 12, or a Shilling, and two remaining Pence; the Pence, set down; and reserve 1 Shilling to be added to the next Column which consists of Shillings. Then 1 and 8 and 2 and 5 make 16; the 6 put down, and carry the 1 to the Column of Tens; 1 and 1 and 1 make three Tens of Shillings, or 30 Shillings; in 30 Shillings there is once twenty Shillings, or a Pound, and 10 over: Write one in the Column of Tens of Shillings, and carry 1 to the Column of Pounds; and continue the *Addition* of Pounds, according to the former Rules.

| l.  | s. | d. |
|-----|----|----|
| 120 | 15 | 9  |
| 65  | 12 | 5  |
| 9   | 8  | 0  |
| 195 | 16 | 2  |

So, half of an even Sum will be carried to the Pounds; and the odd one (where it so happens) set under the Tens of the Shillings.

To facilitate the Casting-up of Money, it will be necessary to learn the following Table.

*Pence.*

| Pence. |      | s. | d. |  | Pence. |      | s. | d. |
|--------|------|----|----|--|--------|------|----|----|
| 20     | } is | 1  | 8  |  | 80     | } is | 6  | 8  |
| 30     |      | 2  | 6  |  | 90     |      | 7  | 6  |
| 40     |      | 3  | 4  |  | 100    |      | 8  | 4  |
| 50     |      | 4  | 2  |  | 110    |      | 9  | 2  |
| 60     |      | 5  | 0  |  | 120    |      | 10 | 0  |
| 70     |      | 5  | 10 |  |        |      |    |    |

Examples in whole Numbers, and Money.

| lb.   | Yards. | l.    | s. | d.                      |
|-------|--------|-------|----|-------------------------|
| 756   | 1325   | 735   | 18 | 09 $\frac{1}{2}$        |
| 132   | 4532   | 423   | 10 | 10 $\frac{1}{2}$        |
| 458   | 7341   | 784   | 12 | 05 $\frac{3}{4}$        |
| 736   | 1298   | 297   | 08 | 04 $\frac{1}{4}$        |
| 857   | 8473   | 542   | 11 | 11                      |
| 241   | 5249   | 298   | 14 | 07 $\frac{3}{4}$        |
| <hr/> |        | <hr/> |    |                         |
| 3180  | 28222  | 3082  | 17 | 00 $\frac{3}{4}$ Total. |

### SUBTRACTION,

**O**R SUBTRACTION, in Arithmetic, the second Rule, or rather Operation, in Arithmetic; whereby we deduct a less Number from a greater, to learn the precise Difference:

Or, more justly, *Subtraction* is the finding a certain Number from two homogeneous ones given; which, with one of the given Numbers, is equal to the other.

The Doctrine of *Subtraction* is reducible to what follows: To SUBTRACT a less Number from a greater.—1<sup>o</sup>, Write the less Number under the greater, in such manner, as that homogeneous Figures answer to homogeneous, *i. e.* Units to Units, Tens to Tens, &c. as directed under ADDITION. 2<sup>o</sup>, Under the two Numbers draw a Line. 3<sup>o</sup>, *Subtract*, severally, Units from Units, Tens from Tens, Hundreds from Hundreds; beginning at the Right-hand, and proceeding to the Left: and write the several Remainders in their correspondent Places, under the Line. 4<sup>o</sup>, If a greater Figure come to be *subtracted* from a less, borrow an Unit from the next Left-hand Place; this is equivalent to 10, and added to the less Number, the *Subtraction* is to be made from the Sum: or if a Cypher chance to be in the next Left-hand Place, borrow the Unit from the next further Place.

By these Rules, any Number may be *subtracted* out of another greater. For Example;

If it be required, from 9800403459  
To subtract 4743865263

The Remainder will be found 5056538196

For, beginning with the Right-hand Figure, and taking 3 from 9, there remains 6 Units, to be wrote underneath the Line: going then to the next Place, 6, I find, cannot be taken from 5; wherefore, from the Place of hundreds 4, I borrow 1, which is equivalent to 10, in the Place of tens; and from the Sum of this 10 and 5, viz. 15, subtracting 6, I find nine tens remaining, to be put down under the Line. Proceeding to the Place of hundreds, 2 with the 1 borrowed at the last, make 3, which subtracted from 4, leave 1. Again, 5 in the Place of thousands, cannot be subtracted from 3; for which Reason, taking 1 from 4, in the Place of hundreds of thousands, into the empty Place of tens of thousands, the Cypher is converted into 10 tens of thousands, whence one 10 being borrowed, and added to the 3, and from the Sum 13 thousand, 5 thousand being subtracted, we shall have 8 thousand to enter under the Line: Then subtracting 6 tens of thousands from 9, there remains 3. Coming now to take 8 from 4; from the 8 further on the Left, I borrow 1, by means whereof, the two Cyphers will be turned each into 9. And after the like manner is the rest of the Subtraction easily performed.

If heterogeneous Numbers be to be subtracted from each other; the Units borrowed are not to be equal to ten; but to so many as there go of Units of the less Kind, to constitute an Unit of the greater: For example;

| <i>l.</i> | <i>s.</i> | <i>d.</i> |
|-----------|-----------|-----------|
| 45        | 16        | 6         |
| 27        | 19        | 9         |
| <hr/>     |           |           |
| 17        | 16        | 9         |

For since 9 Pence cannot be subtracted from 6 Pence; of the 16 Shillings, one is converted into 12 Pence; by which means, for 6 we have 18 Pence: whence 9 being subtracted, there remain 9. In like manner, as 19 Shillings cannot be subtracted from the remaining 15; one of the 45 Pounds is converted into 20 Shillings, from which, added to the 15, 19 being subtracted, the Remainder is 16 Shillings. Lastly, 27 Pounds subtracted from 44 Pounds, there remain 17.

If a greater Number be required to be subtracted from a less, it is evident that the thing is impossible.—The less Number, therefore, in that Case, is to be subtracted from the greater;



and the Defect to be noted by the negative Character. *E. gr.* If I am required to pay 8 Pounds, and am only Master of 3; when the 3 are paid, there will still remain 5 behind; which are to be noted, —5.

*Subtraction* is proved, by adding the Remainder to the Subtrahend, or Number to be subtracted; for if the Sum be equal to the Number whence the other is to be subtracted, the *Subtraction* is justly performed.—For example;

|            |            | <i>l.</i> | <i>s.</i> | <i>d.</i>       |            |
|------------|------------|-----------|-----------|-----------------|------------|
| 9800403459 |            | 156       | 11        | 3 $\frac{1}{4}$ |            |
| 4743865263 | subtrahend | 21        | 17        | 2 $\frac{1}{2}$ | subtrahend |
| <hr/>      |            |           |           |                 |            |
| 5056538196 | Remainder  | 134       | 14        | 9 $\frac{1}{4}$ |            |
| <hr/>      |            |           |           |                 |            |
| 9800403459 |            | 156       | 11        | 3 $\frac{1}{4}$ |            |

*Examples of Integers and Money.*

| <i>Yards.</i>        | <i>l.</i>   | <i>s.</i> | <i>d.</i>           |
|----------------------|-------------|-----------|---------------------|
| 7146325              | <i>Lent</i> | 812       | 13 08 $\frac{1}{4}$ |
| 1483972              | <i>Paid</i> | 190       | 19 10 $\frac{1}{2}$ |
| <hr/>                |             |           |                     |
| <i>Rem.</i> 5662353  | <i>Rem.</i> | 621       | 13 09 $\frac{3}{4}$ |
| <hr/>                |             |           |                     |
| <i>Proof</i> 7146325 |             | 812       | 13 08 $\frac{1}{4}$ |

|                   |   |     |    |                  |
|-------------------|---|-----|----|------------------|
| <i>Borrowed</i>   | { | 429 | 11 | 08               |
| <i>at several</i> |   | 212 | 17 | 10               |
| <i>Times.</i>     |   | 356 | 17 | 06 $\frac{1}{4}$ |

|                        |     |    |                  |
|------------------------|-----|----|------------------|
| <i>Borrowed in all</i> | 999 | 07 | 00 $\frac{1}{2}$ |
| <i>Paid</i>            | 519 | 18 | 09 $\frac{3}{4}$ |

|             |     |    |                  |
|-------------|-----|----|------------------|
| <i>Rem.</i> | 479 | 08 | 02 $\frac{1}{2}$ |
|-------------|-----|----|------------------|

|              |     |    |                  |
|--------------|-----|----|------------------|
| <i>Proof</i> | 999 | 07 | 00 $\frac{1}{4}$ |
|--------------|-----|----|------------------|

## MULTIPLICATION

**I**S the Act, or Art of *multiplying* one Number by another, to find the Product.

*Multiplication*, which is the third Rule in Arithmetic, consists in finding some third Number, out of two others given; wherein one of the given Numbers is contained as often as Unity is contained in the other.

Or, *Multiplication* is the finding what will be the Sum of any Number added to itself, or repeated, as often as there are Units in another.—So *Multiplication* of Numbers is a compendious Kind of Addition.

That

Thus the *Multiplication* of 4 by 5 makes 20, *i. e.* four times five amount to twenty.

In *Multiplication* the first Factor, *i. e.* the Number to be multiplied, or the Multiplicand, is placed over that whereby it is to be multiplied; and the Factum or Product under both.

An Example or two will make the Process of *Multiplication* easy. Suppose I would know the Sum 269 multiplied by 8, or 8 times 269.

|                    |   |   |   |      |
|--------------------|---|---|---|------|
| Multiplicand       | — | — | — | 269  |
| Multiplicator      | — | — | — | 8    |
| Factum, or Product | — | — | — | 2152 |

The Factors being thus disposed, and a Line drawn underneath, (as in the Example) I begin with the Multiplicator thus: 8 times 9 make 72, set down 2, and carry 7 tens, as in Addition; then 8 times 6 make 48, and 7 I carried, 55; set down 5, and carry 5; lastly, 8 times 2 make 16, and with 5 I carried 21, which I put down: so as coming to number the several Figures placed in Order, 2, 1, 5, 2, I find the Product to be 2152.

Now supposing the Factors to express Things of different Species, *viz.* the Multiplicand Men, or Yards, and the Multiplier Pounds; the Product will be of the same Species with the Multiplicator. Thus the Product of 269 Men or Yards multiplied by 8 Pounds or Pence, is 2152 Pounds or Pence; so many of these going to the 269 at the Rate of 8 a-piece. Hence the vast Use of *Multiplication* in Commerce, &c.

If the Multiplicator consist of more than one Figure, the whole Multiplicand is to be added to itself, first, as often as the Right-hand Figure of the Multiplicator shews, then as often as the next Figure of the Multiplicator shews, and so on.— Thus 421 and 23 is equal to 421 and 3 and also 421 and 20. The Product arising from each Figure of the Multiplicator, multiplied into the whole Multiplicand, is to be placed by itself in such a Manner, that the first or Right-hand Figure thereof may stand under that Figure of the Multiplicator from which the said Product arises. For instance;

|               |   |   |   |     |
|---------------|---|---|---|-----|
| Multiplicand  | — | — | — | 421 |
| Multiplicator | — | — | — | 23  |

|                                 |   |      |
|---------------------------------|---|------|
| Particular Product of 421 and 3 | — | 1263 |
| Particular Product of 42 and 20 | — | 842  |

|                   |   |   |   |      |
|-------------------|---|---|---|------|
| The total Product | — | — | — | 9683 |
|-------------------|---|---|---|------|

K 2

This

This Disposition of the Right-hand Figure of each Product follows from the first general Rule; the Right-hand Figure of each Product being always of the same Denomination with that Figure of the Multiplicator from which it arises.

Thus in the Example, the Figure 2 in the Product 842, is of the Denomination of tens, as well as the Figure 2 in the Multiplicator. For 1 and 20 (that is, the 2 of 23) is equal to 20, or 2 put in the Place of tens, or second Place.

Hence if either of the Factors have one or more Cyphers on the Right-hand, the *Multiplication* may be formed without regarding the Cyphers, till the Product of the other Figures be found: To which they are to be then affixed on the Right. And if the Multiplicator have Cyphers intermixed, they need not to be regarded at all.—Instances of each follow.

|                                         |                                            |                                         |                                           |                                             |
|-----------------------------------------|--------------------------------------------|-----------------------------------------|-------------------------------------------|---------------------------------------------|
| $\begin{array}{r} 12 \\ 10 \end{array}$ | $\begin{array}{r} 358 \\ 6000 \end{array}$ | $\begin{array}{r} 10 \\ 10 \end{array}$ | $\begin{array}{r} 2400 \\ 30 \end{array}$ | $\begin{array}{r} 8013 \\ 5006 \end{array}$ |
| 120                                     | 2148000                                    | 100                                     | 72000                                     | 48078                                       |
|                                         |                                            |                                         |                                           | 40065                                       |
|                                         |                                            |                                         |                                           | 40113078                                    |

Thus much for an Idea of *Multiplication*, where the Multiplicator consists wholly of Integers; in the Praxis whereof, it is supposed, the Learner is apprised of the Product of any of the nine Digits multiplied by one another, easily learnt from the Table annexed.

There are also some Abbreviations of this Art.—Thus to multiply a Number by 5, you need only add a Cypher to it, and then halve it.—To multiply by 15, do the same, then add both together. The Sum is the Product.

Where the Multiplicator is not composed wholly of Integers; as it frequently happens in Business, where Pounds are accompanied with Shillings and Pence, Yards with Feet and Inches; the Method of Procedure, if you multiply by a single Digit, is the same in simple Numbers, only carrying from one Denomination to another, as the Nature of each Species requires. *E. gr.* to multiply 123*l.* 14*s.* 9*d.* 3*q.* by five: Say 5 times 3 Farthings is 15 Farthings, that is, 3*d.* 3*q.* write down the 3*q.* and proceed, saying, 5 times 9 Pence is 45 Pence, and 3 Pence added from the Farthings is 48 Pence, which is 4*s.* set down a Cypher, as there are no Pence remaining, and proceed, saying, 5 times 4*s.* is 20*s.* and 4*s.* is 24*s.* set down 4*s.* and say, 5 times 10*s.* is 50*s.* and 10*s.* is 60*s.* which make 3 Pounds, to be carried to the Place of Pounds. Therefore continue thus; 5 times 3 is 15  
and

and 3 is 18; set down 8 and carry 1 or one ten, saying, 5 times 2 is 10 and 1 is 11; set down 1 and carry one, as before, saying, 5 times 1 is 5 and 1 is 6. Thus it will appear that

$$\begin{array}{r} 123l. \quad 14s. \quad 9d. \quad 3q. \\ \text{multiplied by} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}} \\ 5 \end{array}$$

produces—618      4      0      3

If you multiply by two or more Digits, the Methods of Procedure are as follow.—Suppose I have bought 37 Ells of Cloth at 13*l.* 16*s.* 6*d.* per Ell, and would know the Amount of the Whole.—I first multiply 37 Ells by the 13*l.* in the common Method of *Multiplication* of Integers, leaving the two Products without adding them up; then multiply the same 37 Ells by 16*s.* leaving in like manner the two Products without adding them. Lastly, I multiply the same 37 by the 6*d.* the Product whereof is 222*d.* which divided by 12, (see DIVISION) gives 18*s.* 6*d.* and this added to the Product of the 16*s.* the Sum will be 610*s.* 6*d.* the Amount of 37 Ells at 16*s.* 6*d.* the Ell. Lastly, the 610*s.* 6*d.* are reduced into Pounds by dividing them by 20: upon adding the Whole, the Amount of 37 Ells at 13*l.* 16*s.* 6*d.* will be found as in the following.

| 37 Ells<br>At 13 Pounds. | 37 Ells<br>At 16 Shillings. | 37 Ells<br>At 6 Pence. |
|--------------------------|-----------------------------|------------------------|
| <hr/>                    | <hr/>                       | <hr/>                  |
| 111                      | 222                         | 222                    |
| 37                       | 37                          |                        |
| 30 10 6                  | 18 6                        |                        |
| <hr/>                    | <hr/>                       |                        |

Product 511 10 6      610 6

Or thus: Suppose the same Question: Reduce the 13*l.* 16*s.* into Shillings, the Amount will be 276*s.* reduce 276*s.* into Pence, adding 6, the Amount will be 3318*d.* Multiply the 37 Ells by 3318, the Amount will be 122766*d.* which divided by 12; and the Quotient 10230*s.* 6*d.* reduced into Pounds by cutting off the last Figure on the Right, and taking half of those on the Left; yields 511*l.* 10*s.* 6*d.* the Price of the 37 Ells, as before.

Though by these two Methods any *Multiplication* of this Kind may be effected, yet the Operations being long, we shall add a third much shorter—Suppose the same Question: Multiply the Price by the Factors of the Multiplier, if resolvable into Factors; if not, by those that come nearest it; adding the Price for the odd one, or multiplying it by what the Fac-



tors want of the Multiplier. So, the Work will stand thus :  
 37 Ells at 13*l.* 16*s.* 6*d.* : 6 times 6 is 36 and 1 is 37 :

Therefore ———

$$\begin{array}{r}
 82 \quad 19 \quad 0 \\
 497 \quad 14 \quad 0 \\
 13 \quad 16 \quad 6 \\
 \hline
 511 \quad 10 \quad 6
 \end{array}$$

The Price of the 37 Ells.

But the most commodious is the fourth Method, which is performed by aliquot and aliquant Parts—where you are to observe, by the way, that *aliquot Parts* of any thing are those contained several times therein, and which divide without any Remainder ; and that *aliquant Parts* are other Parts of the same thing composed of several aliquot Parts.

To MULTIPLY by *aliquot Parts*, is in Effect only to divide a Number by 3, 4, 5, &c. which is done by taking a 3d, 4th, 5th, &c. from the Number to be multiplied. Example.

To multiply, *v. g.* by 6*s.* 8*d.* Suppose I have 347 Ells of Ribbon at 6*s.* 8*d.* per Ell.

|               |   |   |                                        |
|---------------|---|---|----------------------------------------|
| Multiplicand  | — | — | 347 Ells.                              |
| Multiplicator | — | — | 6 <i>s.</i> 8 <i>d.</i>                |
| Product       | — | — | 115 <i>l.</i> 13 <i>s.</i> 4 <i>d.</i> |

The Question being stated, take the Multiplicator, which, according to the Table of aliquot Parts, is the third ; and say, the third of three is 1, set down 1 ; the third of 4 is 1, set down 1, remains 1, that is, 1 ten, which, added to 7, makes 17 ; then the third of 17 is 5 ; remain 2 Units, *i. e.* two thirds, or 13*s.* 4*d.* which place after the Pounds. Upon numbering the Figures 1, 1, and 5 Integers, and 13*s.* 4*d.* the aliquot Part remaining, I find the Sum 115*l.* 13*s.* 4*d.*

For MULTIPLICATION by *aliquant Parts* : Suppose I would multiply by the aliquant Part 19*s.* I first take for 10*s.* half the Multiplicand ; then for 5, which is the fourth, and lastly, for 4, which is the 5th. The Products of the three aliquot Parts that compose the aliquant Part being added together, the Sum will be the total Product of the *Multiplication*, as in the following Example ; which may serve as a Model for *Multiplication* by any aliquant Part that may occur.

|              |   |   |                                          |
|--------------|---|---|------------------------------------------|
| Multiplicand | — | — | 356 Ells                                 |
| Multiplier   | — | — | 19 <i>s.</i>                             |
|              |   |   | 178 <i>l.</i> for 10 <i>s.</i>           |
|              |   |   | 89 <i>l.</i> for 5 <i>s.</i>             |
|              |   |   | 71 <i>l.</i> 4 <i>s.</i> for 4 <i>s.</i> |
| Product      | — | — | 338 <i>l.</i> 4 <i>s.</i>                |

For

*For the Proof of MULTIPLICATION.*—The Operation is right when the Product divided by the Multiplier quotes the Multiplicand; or divided by the Multiplicand quotes the Multiplier.—A readier Way, though not absolutely to be depended on (see ADDITION) is thus: Add up the Figures of the Factors, casting out the nines; and setting down the Remainders of each. These multiplied together, out of the Factum, cast away the nines, and set down the Remainder. If this Remainder agree with the Remainder of the Factum of the Sum, after the nines are cast out, the Work is right.

*Cross MULTIPLICATION*, or otherwise called *duodecimal Arithmetic*, is an expeditious Method of multiplying Things of several Species, or Denominations, by others likewise of different Species, &c. *E. gr.* Shillings and Pence by Shillings and Pence; Feet and Inches by Feet and Inches; much used in Measuring, &c.—The Method is thus.

Suppose 5 Feet 3 Inches to be multiplied by 2 Feet 4 Inches; say, 2 times 5 Feet is 10 Feet, and 2 times 3 is 6 Inches; Again, 4 times 5 is 20 Inches, or 1 Foot 8 Inches; and 4 times 3 is 12 Parts, or one Inch; the whole Sum makes 12 Feet 3 Inches.—In the same Manner you may manage Shillings and Pence, &c.

| F.    | I. |
|-------|----|
| 5     | 3  |
| 2     | 4  |
| <hr/> |    |
| 10    | 6  |
| 1     | 8  |
|       | 1  |
| <hr/> |    |
| 12    | 3  |

The TABLE.

|         |   |   |    |         |          |    |       |    |
|---------|---|---|----|---------|----------|----|-------|----|
| 3 times | { | 3 | 9  | 7 times | {        | 7  | 49    |    |
|         |   | 4 | 12 |         |          | 8  | 56    |    |
|         |   | 5 | 15 |         |          | 9  | 63    |    |
|         |   | 6 | 18 | <hr/>   |          |    |       |    |
|         |   | 7 | 21 | 8 times | {        | 8  | 64    |    |
|         |   | 8 | 24 |         |          | 9  | 72    |    |
|         |   | 9 | 27 | <hr/>   |          |    |       |    |
| <hr/>   |   |   |    | 9 times | 9        | 81 | <hr/> |    |
| 4 times | { | 4 | 16 |         | 12 times | {  | 2     | 24 |
|         |   | 5 | 20 |         |          | 3  | 36    |    |
|         |   | 6 | 24 |         |          | 4  | 48    |    |
|         |   | 7 | 28 |         |          | 5  | 60    |    |
|         |   | 8 | 32 |         |          | 6  | 72    |    |
|         |   | 9 | 36 |         |          | 7  | 84    |    |
| <hr/>   |   |   |    |         |          | 8  | 96    |    |
| 5 times | { | 5 | 25 |         |          | 9  | 108   |    |
|         |   | 6 | 30 |         |          | 10 | 120   |    |
|         |   | 7 | 35 |         |          | 11 | 132   |    |
|         |   | 8 | 40 |         |          | 12 | 144   |    |
|         |   | 9 | 45 | <hr/>   |          |    |       |    |
| 6 times | { | 6 | 36 |         |          |    |       |    |
|         |   | 7 | 42 |         |          |    |       |    |
|         |   | 8 | 48 |         |          |    |       |    |
|         |   | 9 | 54 |         |          |    |       |    |

## DIVISION

**I**S the last of the four great Rules, being that whereby we find how often a less Quantity is contained in a greater, and the Overplus.

*Division*, in reality, is only a compendious Method of Subtraction; its Effect being to take a less Number from another greater, as often as possible; that is, as oft as it is contained therein. There are, therefore, three Numbers concerned in *Division*: 1. That given to be divided, called the *Dividend*. 2. That whereby the Dividend is to be divided, called the *Divisor*. 3. That which expresses how often the Divisor is contained in the Dividend; or the Number resulting from the *Division* of the Dividend by the Divisor, called the *Quotient*.

There are diverse Ways of performing *Division*, one called the *English*, another the *Flemish*, another the *Italian*, another the *Spanish*, another the *German*, and another the *Indian Way*, all equally just, as finding the Quotient with the same Certainty, and only different in the Manner of arranging and disposing the Numbers. The *Italian Way* is most generally used.

*Division* is performed by seeking how often the Divisor is contained in the Dividend; and when the latter consists of a greater Number of Figures than the former, the Dividend must be taken into Parts, beginning from the Left, and proceeding to the Right, and seeking how often the Divisor is found in each of those Parts.

For Example, it is required to *divide* 6759 by 3: I first seek how oft 3 is contained in 6, *viz.* twice; then how oft in 7, which is likewise twice; with one remaining. This 1 therefore is joined to the next Figure 5, which makes 15, and I seek how oft 3 in 15; and lastly, how oft 3 in 9. All the Numbers expressing how oft 3 is contained in each of those Parts, I write down according to the Order of the Parts of the Dividend, that is, from Left to Right, and separate them from the Dividend itself, by a Line, thus:

| Divisor. | Dividend. | Quotient. |
|----------|-----------|-----------|
| 3)       | 6759      | (2253     |

It appears, therefore, that 3 is contained 2253 Times in 6759; or that 6759 being divided into 3, each Part will be 2253. If there be any Remainder, that is, if the Divisor repeated a certain Number of Times is not equal to the Dividend, what remains is wrote over the Divisor Fraction-wise. Thus, if instead of 6759 the Dividend were only 6758, the Quotient will be the same as in the former Case, except for the

the last Figure 8; for 3 being only contained twice in 8, the Number in the Quotient will be 2; and as twice three is only 6, there remains 2 of the Dividend; which I write after the Quotient, with the Divisor underneath it, and a Line to separate the two; thus,

$$3) 6758 \quad (2252\frac{2}{3}$$

An Example in *Divison*, work'd two Ways.

|                                                                                                                                                                                                                                           |                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| $\begin{array}{r} 32)42645(1332 \\ \underline{32} \phantom{00} \\ 106 \phantom{00} \\ \underline{96} \phantom{00} \\ 104 \phantom{00} \\ \underline{96} \phantom{00} \\ 85 \phantom{00} \\ \underline{64} \phantom{00} \\ 21 \end{array}$ | $\begin{array}{r} 32)42645(1332 \\ \underline{106} \phantom{00} \\ \underline{104} \phantom{00} \\ 85 \phantom{00} \\ \underline{21} \end{array}$ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|

ABBREVIATIONS.

1<sup>st</sup>. If there are any Cyphers on the Right-hand of your Divisor, you may cut off so many Cyphers, or Figures, on the Right-hand of your Dividend; but remember to bring them down (if Figures) to the Remainder.

EXAMPLE.

$$\begin{array}{r} 21|00)8645|29(411 \\ \underline{84} \phantom{00} \\ 24 \phantom{00} \\ \underline{21} \phantom{00} \\ 35 \phantom{00} \\ \underline{21} \phantom{00} \\ 1429 \end{array}$$

2<sup>dly</sup>. By the foregoing Rule, you may observe, that to divide by 10, 100, 1000, &c. is only to cut so many Figures from the Right-hand of the Dividend, as there are Cyphers in the Divisor.

EXAMPLE.

$$1|000)43682|735($$

So the Quotient is 43682, the Remainder 735.

3<sup>dly</sup>.



3dly. When your Divisor is 12, or consists only of one single Figure, or can be reduced to one, by cutting off Cyphers from its Right-hand, the Work may be easily performed in one Line thus :

## R U L E.

Drawing a Line under the Dividend, set down under its first Figure, how often the Divisor is contained in it ; what remains imagine placed before the next Figure ; and, considering how often your Divisor is contained in the Sum it makes, set down the Number underneath, as before ; and so proceeding through all the Figures, set down what remains at last in the Place where your Quotient used to stand.

## E X A M P L E S.

$$\begin{array}{r} 4 \overline{)93645} \text{ (1} \quad 12 \overline{)83675} \text{ (11} \quad 7 \overline{)10056351} \text{ (15} \\ \underline{23411} \quad \underline{6972} \quad \underline{805} \end{array}$$

If you are to divide several Numbers by one common Divisor (as in the Calculating of Tables, &c.) that you may know exactly at once how often your Divisor will go, in some convenient Corner make a Table of your Divisor, by multiplying it severally by all the nine Digits : Thus suppose 562 your Divisor :

|      |   |
|------|---|
| 562  | 1 |
| 1124 | 2 |
| 1686 | 3 |
| 2248 | 4 |
| 2810 | 5 |
| 3372 | 6 |
| 3934 | 7 |
| 4496 | 8 |
| 5058 | 9 |

*Proof of* DIVISION.

*Division* is proved by multiplying the Quotient by the Divisor, or the Divisor by the Quotient ; and adding what remains of the *Division*, if there be any thing. If the Sum be found equal to the Dividend, the Operation is just, otherwise there is a Mistake.



## P A R T II.

## G E O M E T R Y.

**G**EOMETRY is the Science of Extension, and is employed in the Consideration of Lines, Surfaces, and Solids; as all Extension is distinguished into Length, Breadth, and Thickness.

This Science had its Rise among the *Egyptians*, who were in a manner compelled to invent it, to *Of its Origin.* remedy the Confusion which generally happened in their Lands, from the Overflowing of the River *Nile*, which carried away all Boundaries, and effaced all the Limits of their Possessions: And thus this Invention, which at first consisted only in measuring the Lands, that every one might have what belonged to him, was called Land-measuring, or Geometry; but the *Egyptians* afterwards applied themselves to more subtle Researches, and, from a very mechanical Exercise, insensibly produced this fine Science, which deserves to be placed among those of the first Rank.

Geometry is not barely useful, but even absolutely necessary. It is by the Help of Geometry *Of its Use.* that Astronomers make their Observations, regulate the Duration of Times, Seasons, Years, and Cycles, and

and measure the Distance, Motion, and Magnitudes of the Heavenly Bodies.

It is by Geometry that Geographers shew us the Magnitude of the whole Earth, delineate the Extent of Seas, and the Divisions of Empires, Kingdoms, and Provinces.

It is from this Science that Architects derive their just Measures in the Construction of public Edifices, as well as of private Houses.

It is by its Assistance that Engineers conduct all their Works, take the Situations and Plans of Towns, the Distance of Places, and, in fine, the Measure of such Things as are only accessible to the Sight.

Such as are in the Military Service are obliged to apply themselves to this Science. It is not only an Introduction to Fortification (which shews them how to build Ramparts for the Defence of Places, and to construct and make Machines to destroy them), but also gives them great Knowledge and Readiness in the Military Art, in the drawing up an Army in Order of Battle, and in marking out the Ground in Encampments. It also shews them how to make Maps of Countries, to take the Plans of Towns, Forts, and Castles, to measure all Kinds of Dimensions accessible or inaccessible, to give Designs, and, in fine, to render themselves as serviceable by their Understanding and Science, as by their Strength and Courage.

All who profess Designing should know something of Geometry, because they cannot otherwise perfectly understand Architecture nor Perspective, which are two Things absolutely necessary in their Art.

Musick, Mechanics, and, in a word, all the Sciences which consider Things susceptible of more and less; *i. e.* all the precise and accurate Sciences, may be referred to *Geometry*; for all speculative Truths consisting only in the Relations of Things, and in the Relations between those Relations, they may be all referred to Lines. Consequences may be drawn from them; and these Consequences, again, being rendered sensible by Lines, they become permanent Objects, constantly exposed to a rigorous Attention and Examination: And thus we have infinite Opportunities both of inquiring into their Certainty, and pursuing them farther.

The Reason, for Instance, why we know so distinctly, and mark so precisely, the Concords called *Octave*, *Fifth*, *Fourth*, &c. is, that we have learnt to express Sounds by Lines, *i. e.* by Chords accurately divided; and that we know that the  
Chord,

Chord, which sounds Octave, is double of that which it makes Octave withal; that the fifth is in the sesquialterate Ratio, or as three to two; and so of the rest.

The Ear itself cannot judge of Sounds with such Precision; its Judgments are too faint, vague, and variable, to form a Science. The finest, best-tuned Ear, cannot distinguish many of the Differences of Sound; whence many Musicians deny any such Differences; as making their Sense their Judge. Some, for Instance, admit no Difference between an Octave and three Ditones: and others, none between the greater and lesser Tone; the Comma, which is the real Difference, is insensible to them; and much more the Scisma, which is only half the Comma.

It is only by Reason, then, that we learn, that the Length of the Chord which makes the Difference between certain Sounds being divisible into several Parts, there may be a great Number of different Sounds contained therein, useful in Music, which yet the Ear cannot distinguish. Whence it follows, that had it not been for Arithmetic and *Geometry*, we had had no such Thing as regular, fixed Music; and that we could only have succeeded in that Art by good Luck, or Force of Imagination, *i. e.* Music would not have been any Science founded on incontestable Demonstration; though we allow that the Tunes composed by Force of Genius and Imagination are usually more agreeable to the Ear than those composed by Rule.

So, in Mechanics, the Heaviness of a Weight, and the Distance of the Centre of that Weight from the Fulcrum, or Point it is sustained by, being susceptible of plus and minus, they may both be expressed by Lines; whence *Geometry* becomes applicable hereto; in virtue whereof, infinite Discoveries have been made, of the utmost Use in Life.

*Geometrical Lines* and Figures are not only proper to represent to the Imagination the Relations between Magnitudes, or between Things susceptible of more and less; as Spaces, Times, Weights, Motions, &c. but they may even represent Things which the Mind can no otherwise conceive, *e. gr.* the Relations of incommensurable Magnitudes.

We do not, however, pretend, that all Subjects Men may have Occasion to enquire into, can be expressed by Lines. There are many not reducible to any such Rule: Thus, the Knowledge of an infinitely powerful, infinitely just God, on whom all Things depend, and who would have all his Creatures execute his Orders, to become capable of being happy,



is the Principle of all Morality, from which a thousand undeniable Consequences may be drawn, and yet neither the Principle nor the Consequences can be expressed by Lines or Figures. Malebr. *Recher. de la Ver.* T. ii.

Indeed, the ancient *Egyptians*, we read, used to express all their Philosophical and Theological Notions by *Geometrical Lines*. In their Researches into the Reason of Things, they observed that God and Nature affect Perpendiculars, Parallels, Circles, Triangles, Squares, and harmonical Proportions; which engaged the Priests and Philosophers to represent the divine and natural Operations by such Figures: In which they were followed by *Pythagoras*, *Plato*, &c.

But it must be observed, that this Use of *Geometry* among the Ancients was not strictly scientific, as among us; but rather symbolical: They did not argue, or reduce Things and Properties unknown from Lines; but represented or delineated Things that were known. In Effect, they were not used as Means or Instruments of discovering, but Images or Characters to preserve or communicate the Discoveries made.

## DEFINITIONS.

### Of a POINT.

*Fig. 1. Geom. Plate 1.* **A** Point is that which has no Parts; that is, it has no Length, Breadth, nor Thickness, But as no Operation can be performed without the Assistance of visible and corporeal Things, we must therefore represent the mathematical Point by the natural one, which is an Object of our Sight, the smallest and least sensible, and is made by the Prick of a Pen or Pencil, as the Point marked A.

A *central Point*, or Center, is a Point from whence a Circle or Circumference is described; or rather, it is the Middle of a Figure, as the Point B.

A *secant Point* is a Point through which Lines cross each other, and is usually called a Section; C.

Fig. 1.

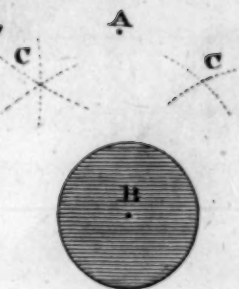


Fig. 2

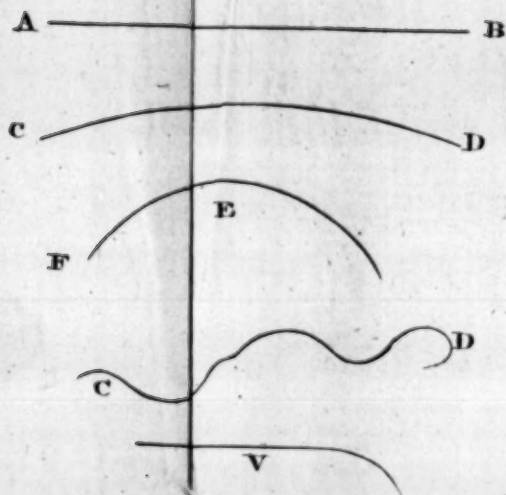


Fig. 4

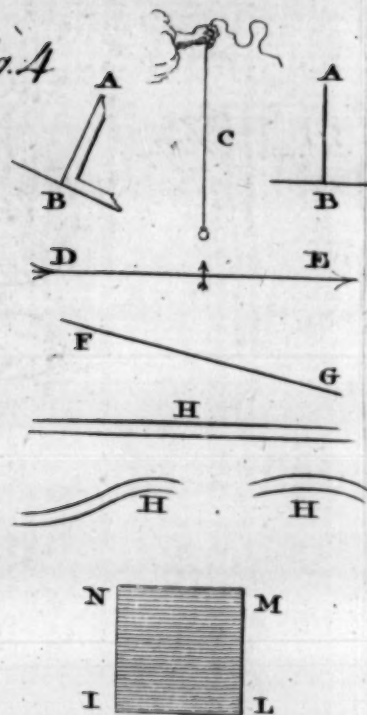


Fig. 5

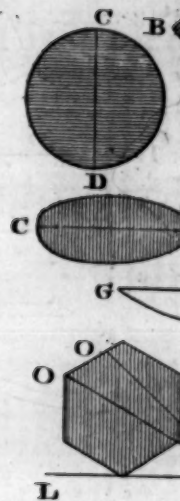


Fig. 9

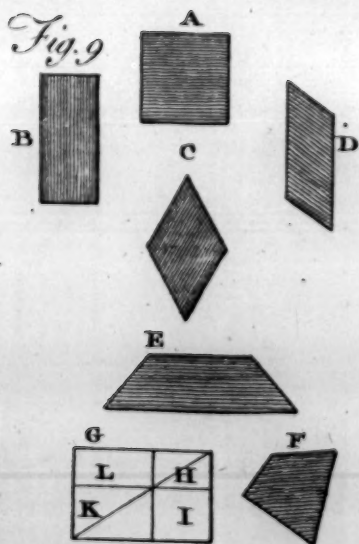


Fig. 10.

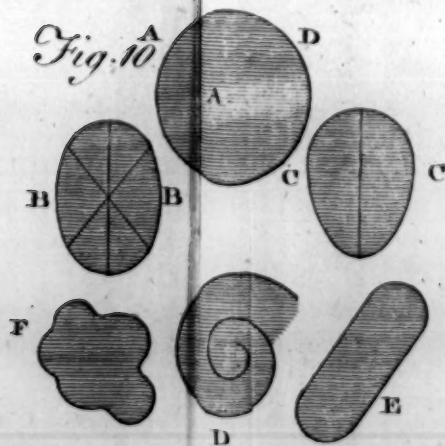


Fig. 11

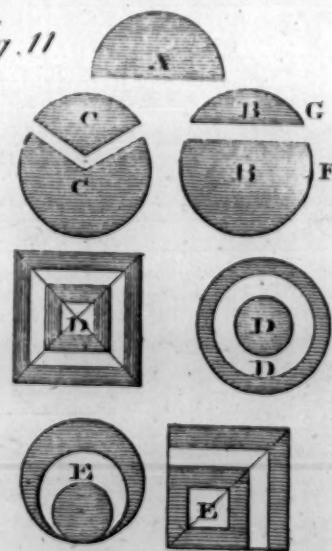
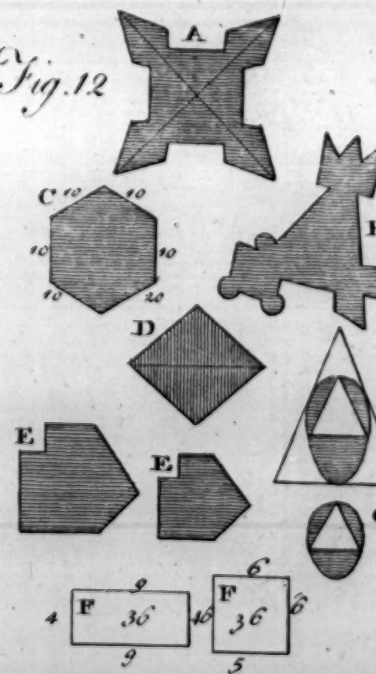


Fig. 12





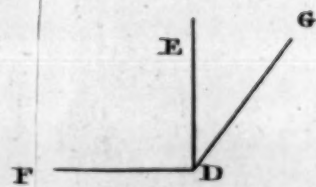
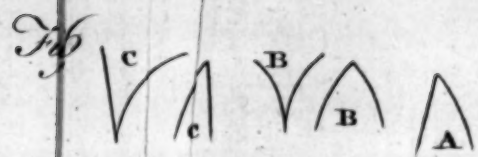
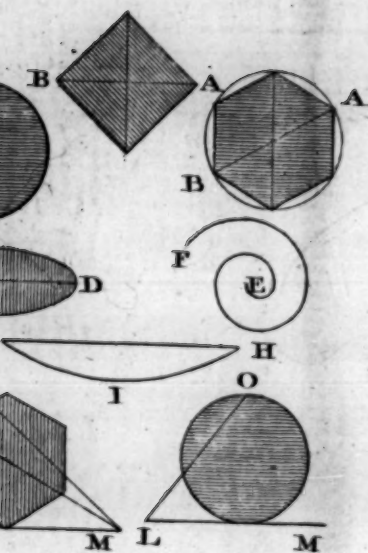


Fig. 7

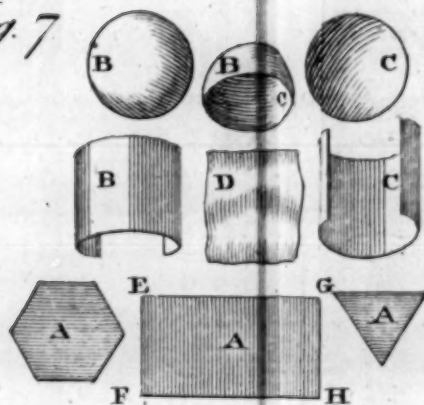


Fig. 8

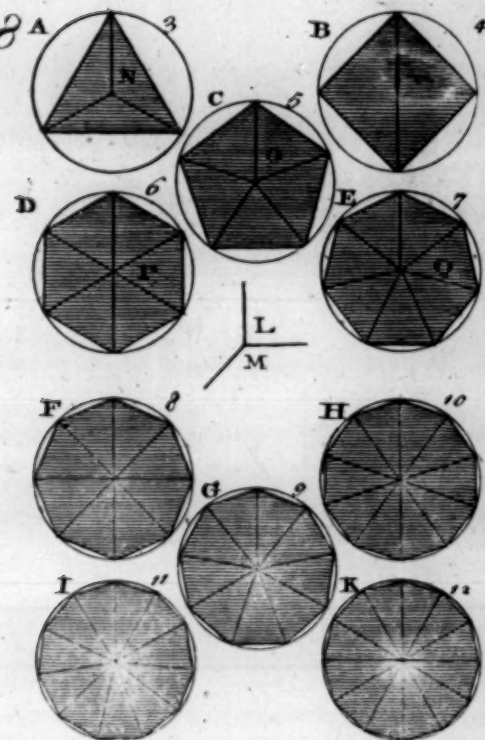


Fig. 13

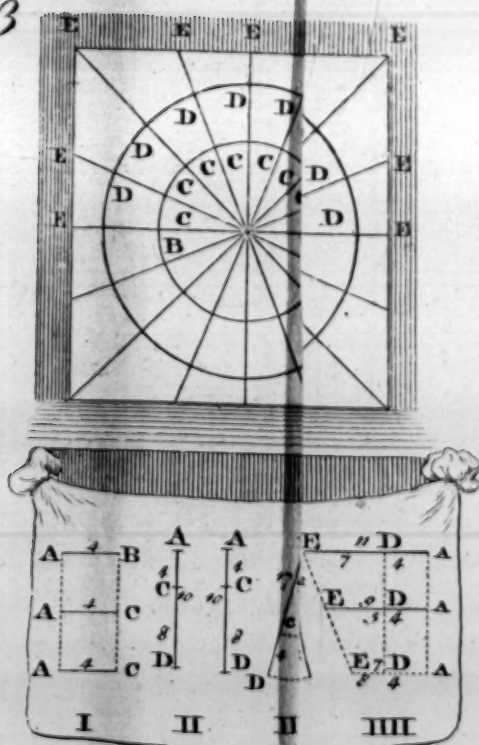


Fig. 14

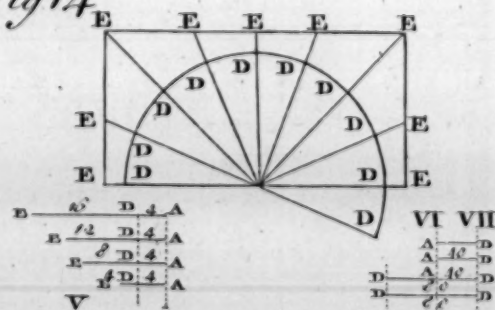


Fig. 15

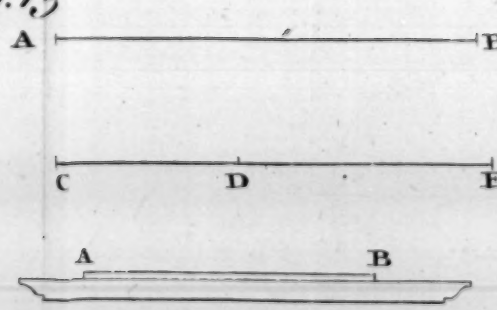
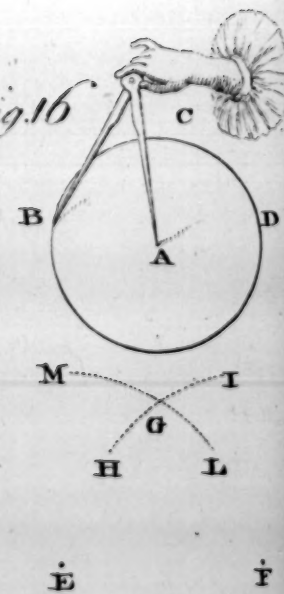


Fig. 16



## Of L I N E S.

A *Line* is a Length without Breadth.

Fig. 1.

The *Line* is nothing more than the Passage made by a Point from one Place to another, and would be imperceptible, were it not described by the natural Point, which by its Course represents it to us, as AB. CD. EF.

Plate 1.

There are as many Sorts of Lines, as the Point is susceptible of different Movements.

A *Right Line* is that which is equally comprised between its two Extremities: Or, it is that which a Point describes in its Passage directly from one Place to another, without any Turnings, as AB.

A *Curve Line* is that which departs from a direct Opposition to its Extremities, by one or more Turnings or Windings, as CD.

When this Line is described by the Compasses it is called Circular, as E.

A *Mixed Line* is that which is both Right and Curve, as the Line V.

The *Line* receives several other Denominations according to its various Positions and Properties.

A *Perpendicular* is a right Line which falls upon, or is raised from another, making the Angles on each Side of it equal; AB.

Fig. 4.

Plate 1.

A *Plummet Line* is that which descends directly downwards, without inclining either to the Right or Left, and which, were it infinitely prolonged, would pass through the Center of the World; C.

The *Horizontal* is a Line in Equilibrium, or that inclines equally in all its Parts; DE.

*Parallel Lines* are those which are opposite each other, and at equal Distances; H.

An *Oblique* is a Line which is neither horizontal nor a Plummet, but slanting or across; FG.

The *Base* is the Line upon which any Figure rests; IL.

*Sides* are the Lines which enclose any Figure; I. N. L. M.

A *Diagonal* is a Right Line which crosses any Figure to two opposite Angles of the same Figure; AB.

Fig. 5.

Plate 1.

A *Diameter* is a Right Line which crosses any Figure through its Center, and is terminated by its Circumference CD.



A *Spiral Line* is a Curve Line which departs from its Center, and the farther, in Proportion as it turns round itself; EF.

A *Chord* or *Subtense* is a Right Line extended from one End of an Arch to the other End thereof; GH.

An *Arch* is Part of a Circle or Circumference; GIH.

A *Tangent Line* is that which touches some Figure without passing into it, and without being able to pass into it or cross it, even though it were prolonged; LM.

A *Secant* is a Line drawn from the Center of a Circle, cutting it, and meeting with a Tangent without; LO. MO.

If two Lines meet at their Extremities, they either meet directly or indirectly. If directly, they then make but one Line; if indirectly, they constitute an Angle.

### Of ANGLES.

*Geom. Plate* 1. *Fig. 6.* **A**N Angle is the indirect Course of two Lines to the same Point; or rather, it is the Space contained between the indirect Course of two Lines to the same Point; A. B. C.

When this Course is described by two Right Lines, the Angle is called Rectilinear, and when it is described by two Curve Lines it is called Curvilinear; but when it is described by two Lines, one of which is a Right and the other a Curve, it is called Mixtilinear.

A. Rectilinear, or Right-lined Angle.

B. Curvilinear, or Curved-lined Angle.

C. Mixtilinear, or Mixed-lined Angle.

The Rectilinear Angle, according as it is more or less open, receives particular Denominations, as Right, Acute, Obtuse; therefore the Terms Rectilinear, Curvilinear, and Mixtilinear, have regard only to the Nature of the Lines; and those of Right, Acute, and Obtuse, respect only the Quantity of Space contained between the said Lines.

A *Right Angle* is when one of its Lines is perpendicular upon the other; EDF.

An *Acute Angle* is that which is less open than the Right; EDG.

An *Obtuse Angle* is that which is more open than the Right; FDG.

The Letter D. in the Middle shews the Angle.

## Definition of SUPERFICIES.

**A** *Superficies* is that which has Length and Breadth, without Thickness. *Geom. Plate 1. Fig. 7.*

According to Geometricians, as the Line is a Production of the Point, so the Superficies is a Production of the Line. Thus, supposing the Line EF was from each of its Extremities drawn to GH, it constitutes the Superficies EF, GH, which is an Extent between Lines, that has Length and Breadth, but not Depth or Thickness; and this is frequently called a *Surface*; or if it is considered with regard to its Extremities, which are the Lines by which it is encompassed, it is then called a *Figure*.

If a Superficies is raised, it is called *convex*; if it is hollow, it is called *concave*; and if it is flat and even, it is called a *Plane*.

B. Convex Superficies.

C. Concave Superficies:

A. Plane Superficies.

D. Convex, Concave, and Plane Superficies.

So far we have only shewn the Construction of the Plane Superficies.

The Termination is the Bounds or Limits of any Thing. The Point is the Termination of the Line: The Line is the Termination of the Superficies: And the Superficies is the Termination of a Body.

*Of Rectilinear Superficies or Figures.*

**S**uperficies have particular Names according to the Number of their Sides. *Geom. Plate 1. Fig. 8.*

A. is a *Trigon* or *Triangle*, Fig. of three Sides.

B. a *Tetragon* or *Square*, Fig. of four Sides.

C. a *Pentagon*, Fig. of five Sides.

D. an *Hexagon*, Fig. of six Sides.

E. an *Heptagon*, Fig. of seven Sides.

F. an *Octagon*, Fig. of eight Sides.

G. a *Nonagon*, Fig. of nine Sides.

H. a *Decagon*, Fig. of ten Sides.

I. an *Undecagon*, Fig. of eleven Sides.

K. a *Duodecagon*, Fig. of twelve Sides.

All these Figures are also called by the general Name *Polygons*.

### Of TRIANGLES.

**T**riangles are distinguished by the Nature of their Angles, and the Disposition of their Sides, thus :

|                                |                      |                        |
|--------------------------------|----------------------|------------------------|
| L. is a right angled Triangle, | } it has<br>that is, | One right Angle.       |
| M. an obtuse angled Triangle,  |                      | One Angle obtuse.      |
| N. an acute angled Triangle,   |                      | All its Angles acute.  |
| O. an equilateral Triangle,    |                      | All its Sides equal.   |
| P. an Isosceles Triangle,      |                      | Only two Sides equal.  |
| Q. a Scalene Triangle,         |                      | All its Sides unequal. |

### Of FIGURES of four Sides.

*Plate 1. Fig. 9.* **A.** Is a *Square*, a Figure of four equal Sides, and four right Angles.

**B.** a *Long-Square*, a rectangled Superficies, which has its Angles Right, but not its Sides equal.

**C.** a *Rhombus*, or a quadrilateral Figure, whose four Sides are equal, but not its four Angles.

**D.** a *Rhomboides*, whose opposite Sides and Angles are equal, tho' the Figure is neither equiangular nor equilateral.

**BD.** are also *Parallelograms*, which are quadrilateral Figures, whose opposite Sides are parallel.

**E.** a *Trapezium*, two of whose Sides only are parallel, the two others equal.

**F.** a *Trapeziod*, whose Sides and Angles are unequal.

All other Figures of more than four Sides are called by the general Name of *Multilaterals*.

### Of CURVES, or Curvilinear Figures.

*Plate 1. Fig. 10.* **A.** Is a *Circle*, which is a Superficies or Figure perfectly round, described from a Center whose Circumference is equally distant from it. The Circumference is the Extremity of the Circle, or the Line which incloses it.

**B.** an *Oval*, which is a curvilinear Figure described from several Centers, and all whose Diameters divide equally in two.

**C.** an *Elipsis*, which is also a curvilinear Figure described from several Centers, but in the Form of an Egg, and of which

which there is but one Diameter that divides it equally in two.

D. a *Volute*, which is a Figure or Superficies contained in a spiral Line.

E. a Cylindrical Superficies.

F. an irregular curvilinear Figure, composed of several unequal curve Lines.

*Of Mixed FIGURES.*

A. Is a Semicircle, which is so much of a Circle as is contained from its Diameter either way. *Plate 1.  
Fig. 11.*

B. a Portion of a Circle, being composed of a Right Line and Part of a Circle.

F. a great Portion of a Circle, containing more than half of it.

G. a small Portion of a Circle, containing less than half of it.

C. a Sector, which is a Figure composed of two Semidiameters, with more or less than half of the Circle.

D. Concentric Figures are those whose Centers are the same.

E. Excentric Figures are those contained in some measure within each other, but which have not the same Center.

*Of Regular and Irregular FIGURES.*

A. A Regular Figure, is that whose opposite Sides are equal and the same. *Plate 1.  
Fig. 12.*

B. An Irregular Figure, is that composed of unequal Sides and Angles.

EE. Similar Figures, are those of which the Lines of one are proportioned to the Lines of the other, tho' one may be greater or lesser than the other.

FF. Equal Figures, are those whose Centers are the same, and which may be similar or dissimilar.

C. An Equiangular Figure, has all its Angles equal.

EE. One Figure is Equiangular to another, when all the Angles of one are equal to all the Angles of the other.

CD. An Equilateral Figure, is that whose Sides are all equal.

GG. Similar Curvilinear Figures are those in which may be inscribed, or round which may be circumscribed, similar Polygons.



## A X I O M S.

Plate 1. **A**N *Axiom*, is such a common, plain, self-evident  
Fig. 13. and received Notion, that it cannot be made more  
plain and evident by Demonstration, because it is itself better  
known than any thing that can be brought to prove it.

## I.

Things equal to one single Thing, are in themselves equal.  
The Lines AC, AC, which are equal to AB, are also equal  
to themselves.

## II.

If equal Things are added to Things that are equal, the  
Whole will be equal.

The Lines AC, AC, are equal,  
The Lines added, CD, CD, are equal,  
Therefore the Whole, AD, AD, are also equal.

## III.

If equal Things are taken from Things that are equal, the  
Remainder will be equal.

From the equal Lines AD, AD,  
Take away the equal Parts, AC, AC,  
The remaining Parts CD, CD,  
Are equal.

## IV.

If equal Things are added to Things that are unequal, the  
Whole will be unequal.

To the unequal Lines DE, DE,  
Add the equal Lines AD, AD,  
And the whole AE, AE,  
Will be unequal.

## V.

Plate 1. If equal Things are taken away from Things which  
Fig. 14. are unequal, the Remainder will be unequal.

From the unequal Lines AE, AE,  
Take away the equal Parts AD, AD,  
The Remainder DE, DE,  
Are unequal.

VI.

Things which are double the Proportion of another, are in themselves equal.

The Right Lines DD, DD,  
Which are double the Line AD,  
Are in themselves equal.

VII.

Things which have but half the Proportion of other equal Things, are in themselves equal.

The Lines AD, AD,  
Which are only half the Length of the Lines DD, DD,  
Are in themselves equal.

What is here said with regard to Lines, is equally true with respect to Numbers, Superficies, and Solids.

*Resolutions of some Questions necessary to facilitate the Practice of GEOMETRY.*

I.

To draw a Line from the Point A Plate 1.  
To the Point B. Fig. 15.

P R A C T I C E.

Apply the Ruler even with the Points A and B.  
Then draw the Line required AB,  
By drawing your Pen or Pencil along  
The Side of the Ruler, from the Point A  
To the Point B.

II.

To prolong infinitely the Line CD,  
From the Extremity D.

P R A C T I C E.

Join the Ruler close to the Line CD  
Continue infinitely the said Line CD  
From the Extremity D  
By drawing the Pen along the Side  
Of the Ruler towards E.

## III.

Plate 1. To describe a Circle from the Point A  
Fig. 16. And from the Distance AB.

## P R A C T I C E.

Place one of the Points of the Compass in the Point A  
Open the Compasses, and extend the other into the Point B  
Turn the Compasses in the Point A  
And by drawing or turning them round from the Point B  
Describe the Circle required BCD.

## IV.

To describe a Section from the given Points EF.

## P R A C T I C E.

Open the Compasses at Discretion, but in such a manner  
nevertheless that the Distance between its Points may be  
greater than half the Distance between the two given Points  
E and F.

Having opened the Compasses,  
From the Point E describe the Arch LM  
From the Point F describe the Arch HI  
The Section G  
Is what is required.

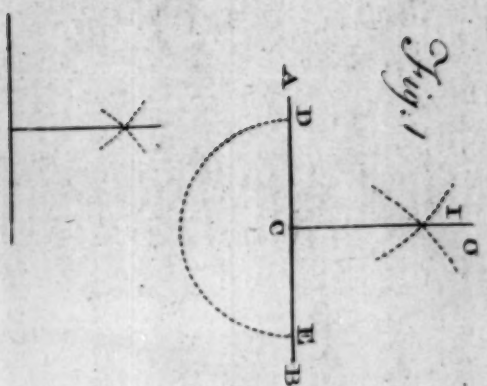


Fig. 2

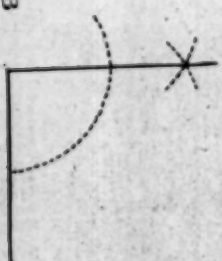
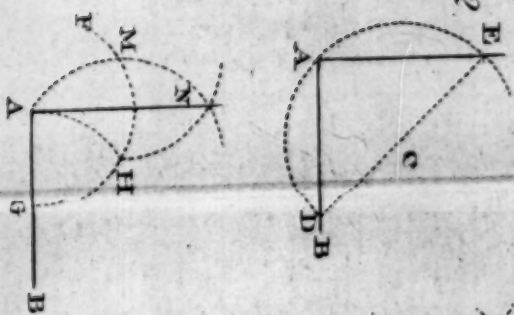


Fig. 3

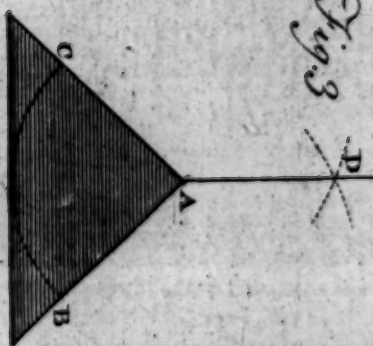


Fig. 4

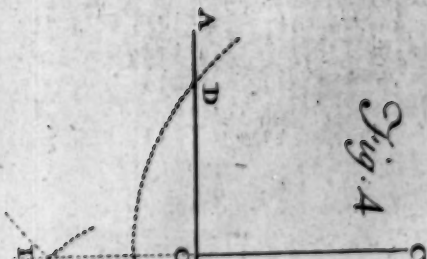


Fig. 8

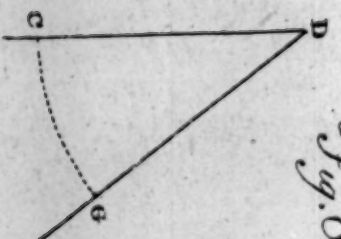


Fig. 9

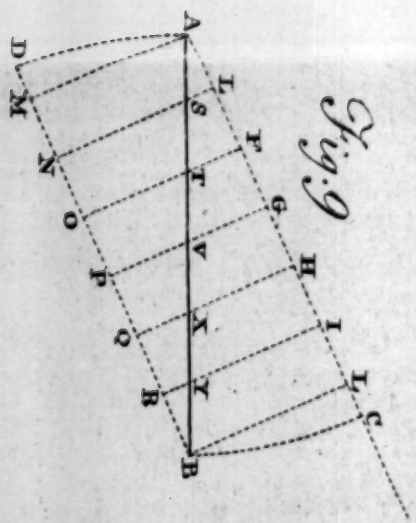


Fig. 10

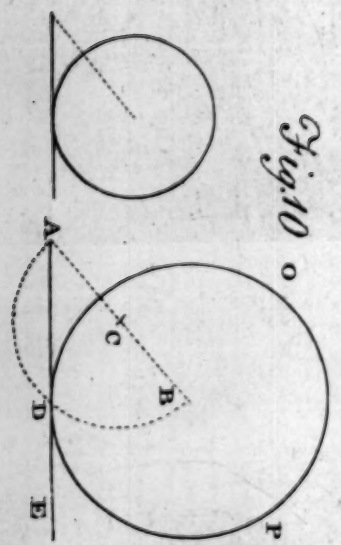


Fig.



Fig. 5

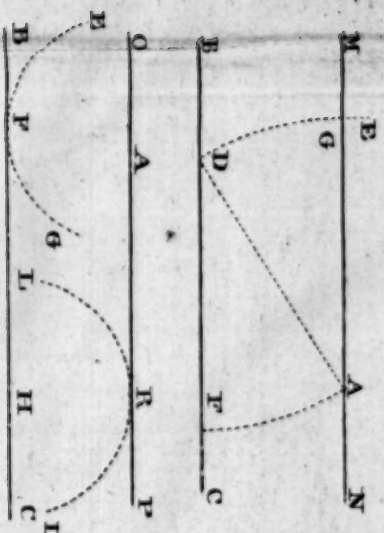


Fig. 6

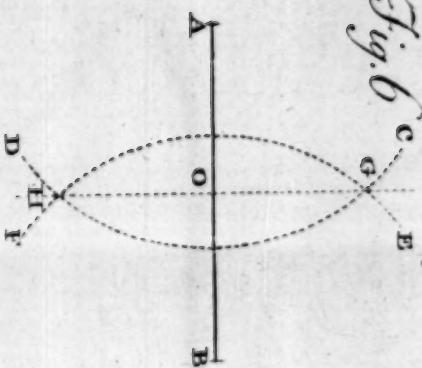


Fig. 7

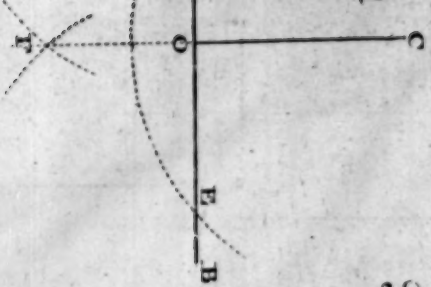
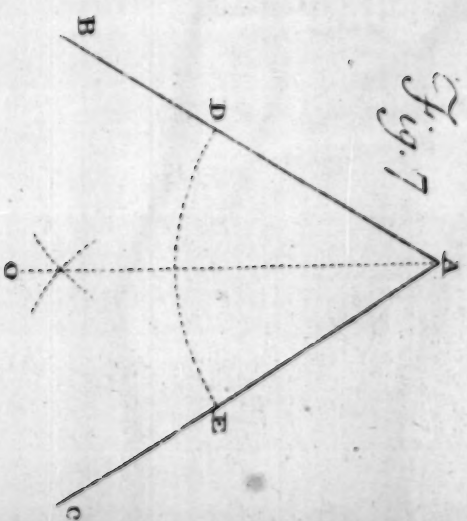


Fig. 12

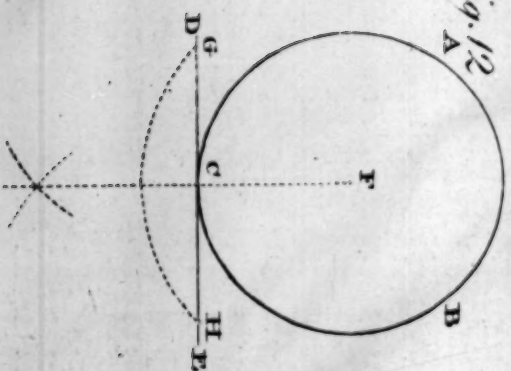


Fig. 13

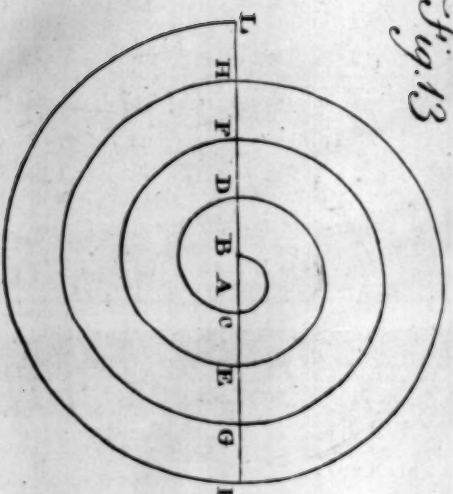


Fig. 14

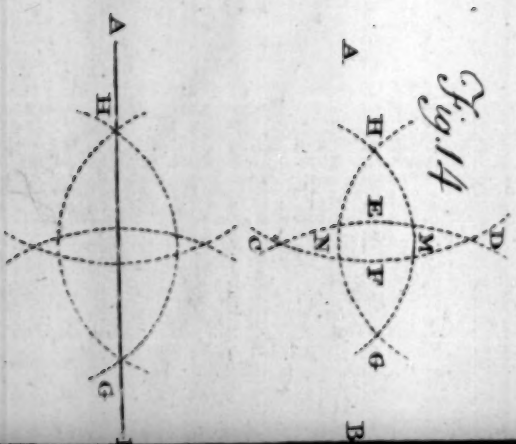
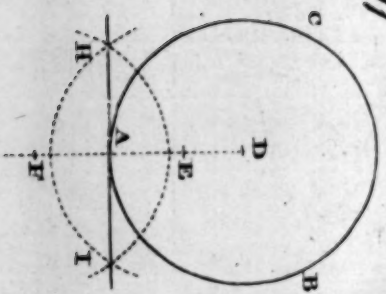


Fig. 11





# B O O K I.

## *On the Drawing of L I N E S.*

### P R O P O S I T I O N I.

**T**O raise a Perpendicular from a given Point in *Plate 2.*  
the Middle of a Right Line. *Fig. 1.*

Let C be the given Point in the Middle of the Line AB,  
upon which the Perpendicular is to be raised.

### P R A C T I C E.

|                                       |     |
|---------------------------------------|-----|
| From the given Point                  | C   |
| Describe at Discretion the Semicircle | DE. |
| From the Points                       | DE  |
| Make the Section                      | I.  |
| From the Point                        | C   |
| Draw the Right Line required          | CO  |
| Through the Section                   | I.  |

Thus the Line CO will be the Perpendicular upon the given  
Line AB, and raised from the given Point C.

### P R O P O S I T I O N II.

To raise a Perpendicular upon the Extremity of *Plate 2.*  
a Right Line given. *Fig. 2.*

AB is the Right Line given, at the Extremity of which A  
the Perpendicular is to be raised.

### P R A C T I C E.

|                                  |          |
|----------------------------------|----------|
| Fix at Discretion the Point      | C        |
| Above the Line                   | AB.      |
| From this Point                  | C        |
| And the Distance                 | CA       |
| Describe the Portion of a Circle | EAD.     |
| Draw the Right Line              | DCE      |
| Through the Points               | D and C. |
| Then draw the Line required      | AE.      |
| Which will be perpendicular to   | AB,      |
| And at the proposed Extremity    | A.       |

*Otherwise,*

From the Point A describe the Arch GHM.  
 From the Point G describe the Arch AH.  
 From the Point H describe the Arch AMN.  
 From the Point M describe the Arch HN.  
 Then draw the Line required AN.

## P R O P O S I T I O N III.

*Plate 2.* Upon an Angle given, to raise a Right Line,  
*Fig. 3.* which shall incline neither to the Right nor Left.

Let BAC be the Angle upon which a Right Line is to be raised, that shall not incline either to the Right or Left.

## P R A C T I C E.

From the Angle given A  
 Describe at Discretion the Arch BC.  
 From the Points or Extremities B and C  
 Make the Section D.  
 From the Point or Angle given A.  
 Draw the Right Line required AD  
 Through the Section D.  
 Thus the Right Line AD  
 Will be raised upon the Angle BAC  
 Without inclining either to the Right or Left.

## P R O P O S I T I O N IV.

*Plate 2.* To bring down a Perpendicular Line upon a Right  
*Fig. 4.* Line given, and from a Point at a Distance from the said Right Line.

Let C be the Point from whence a Perpendicular Line is to be brought down upon the Line AB.

## P R A C T I C E.

From the given Point C  
 Describe at Discretion the Arch DE,  
 Cutting the Line AB  
 At the Points D and E.  
 From these Points D and E  
 Make the Section F.  
 Then draw the Line CF.  
 And the Line CO  
 Will be the Line required.

P R O-



P R O P O S I T I O N V.

To draw a Line through a given Point, parallel *Plate 2.*  
to a Right Line given. *Fig. 5.*

Let A be the Point through which a Line is to be drawn  
parallel to the Line BC.

P R A C T I C E.

|                                     |          |
|-------------------------------------|----------|
| Draw at Discretion the oblique Line | AD,      |
| From the Point                      | A        |
| Describe the Arch                   | DE.      |
| From the Point                      | D        |
| Describe the Arch                   | AF.      |
| Make the Arch                       | DG       |
| Equal to the Arch                   | AF.      |
| Then draw the Line required         | MN       |
| Through the Points                  | A and G. |

*Otherwise,*

|                                    |        |
|------------------------------------|--------|
| From the Point A describe the Arch | EFG    |
| Touching the Line                  | BC,    |
| And without changing the opening   | } LRI. |
| of the Compasses, from the Point   |        |
| H describe the Arch                |        |
| Then draw the Line required        | OP     |
| Through the Point                  | A,     |
| And touching the Top of the Arch   | LRI.   |

P R O P O S I T I O N VI.

To divide a Right Line given of a determined *Plate 2.*  
Length, into two equal Parts. *Fig. 6.*

Let AB be the proposed Right Line, to be divided equally  
in two.

P R A C T I C E.

|                                   |     |
|-----------------------------------|-----|
| From the Point or Extremity       | A   |
| Describe the Arch                 | CD. |
| Then without changing the Opening | } B |
| of the Compasses, from the Point  |     |
| or Extremity                      |     |
| Describe the Arch                 | EF. |

It



It is necessary these two Arches should intersect each other,

Draw the Right Line GH

Through the Sections G and H

Thus the Line AB will be divided into two equal Parts at the Point O.

### P R O P O S I T I O N VII.

*Plate 2.* To divide a given Rectilinear Triangle into two  
*Fig. 7.* equal Parts.

Let BAC be the Angle proposed to be divided into two equal Parts.

### P R A C T I C E.

From the Angle A

Describe at Discretion the Arch DE.

From the Points D and E

Make the Section O

Then draw the Line AO

Which will divide the given Angle BAC into two equal Parts,

### P R O P O S I T I O N VIII.

*Plate 2.* To make a Rectilinear Angle at the Extremity of  
*Fig. 8.* a Right Line equal to a Rectilinear Angle given.

Let A be the Extremity of the Line AB, at which an Angle is to be made, equal to the given Rectilinear Angle CDG,

### P R A C T I C E.

From the Angle D

Describe at Discretion the Arch CG.

Then without changing the Opening  
of the Compasses, from the Point } A  
or Extremity

Describe the Arch HO.

Make the Arch HE

Equal to the Arch CG.

Then draw the Line AE.

And the Angle BAE

Will be equal to the Angle CDG.

P R O.

P R O P O S I T I O N IX.

To divide a Right Line given into as many equal Parts as you please. *Plate 2. Fig. 9.*

Let AB be the Line proposed to be divided into six equal Parts,

P R A C T I C E.

|                                |            |                 |
|--------------------------------|------------|-----------------|
| From the Extremity             | A          |                 |
| Draw at Discretion the Line    | AC.        |                 |
| From the Extremity             | B          |                 |
| Draw the Line                  | BD         |                 |
| Parallel to the Line           | AC.        | <i>Prop. 5.</i> |
| Then from the Points           | A and B,   |                 |
| And upon the Line              | AC and BD, |                 |
| Make six equal Divisions, viz. | EFGHIL     |                 |

upon the Line AC, and  
 RQPONM upon the Line BC.  
 Then draw the Line EN, FO, GP, HQ, IR.  
 And the Line AB will be divided into six equal Parts by  
 the Sections STUXY.

P R O P O S I T I O N X.

From a given Point, to draw a Right Line which shall touch a proposed Circle. *Plate 2. Fig. 10.*

Let A be the Point from whence a Line is to be drawn that shall touch the Circle DOP.

P R A C T I C E.

|                               |     |                 |
|-------------------------------|-----|-----------------|
| From the Center of the Circle | B   |                 |
| Draw the Secant Line          | BA. |                 |
| Divide this Line              | BA  | <i>Prop. 7.</i> |
| Into two equal Parts at       | C.  |                 |
| From this Point               | C   |                 |
| And the Interval              | CA  |                 |
| Describe the Semicircle       | ADB |                 |
| Cutting the Circle at         | D.  |                 |
| Then from the given Point     | A   |                 |
| Draw the Right Line           | AE  |                 |
| Through the Point             | D.  |                 |

Thus the Right Line AE will be the Tangent Line required.

P R O-

## P R O P O S I T I O N XI.

*Plate 2.* To draw a Right Line, which shall touch a  
*Fig. 11.* Circle at a given Point.

Let ABC be the Circle, in the Circumference of which is the given Point A.

## P R A C T I C E.

|                                        |    |
|----------------------------------------|----|
| From the Point or Center               | D  |
| Draw the Line                          | DF |
| Through the given Point                | A. |
| Then to the given Point                | A  |
| And upon the Line                      | DF |
| <i>Prop. 1.</i> Draw the Perpendicular | AH |
| Prolonged towards                      | I. |

Thus this Tangent Line HI will touch the Circle at the given Point A, which is what the Proposition required.

## P R O P O S I T I O N XII.

*Plate 2.* A Circle and a Right Line touching it being  
*Fig. 12.* given, to find the Point where the said Right Line touches the said Circle.

Let ABC be the Circle touched by the Line GH.

We are to find the Point where the Line touches the Circle,

## P R A C T I C E.

|                                        |     |
|----------------------------------------|-----|
| From the Center of the Circle          | F   |
| Bring down the Perpendicular           | FC  |
| <i>Prop. 4.</i> Upon the Touching Line | DE. |

The Section C will be the Touching Point required.

## P R O P O S I T I O N XIII.

*Plate 2.* To describe a Spiral Line upon a Right Line  
*Fig. 13.* given.

Let IL be the Line upon which a Spiral Line is to be described.

## P R A C T I C E.

Divide half of the Line IL into as many equal Parts as you would describe Revolutions upon the said Line.

## E X A M P L E.

E X A M P L E.

Suppose you would describe four upon it.

Divide the half of the Line BI

Into four equal Parts BCE, GI.

Also divide BC

Equally in two at A. *Prop. 6.*

From this Point A

Describe the Semicircles CD, EF, FG, HI.

From the Point B

Describe the Semicircles CD, EF, GH, IL.

and you will have the Spiral Line required.

P R O P O S I T I O N XIV.

Between two given Points, to find two others *Plate 2.*  
directly between them. *Fig. 14.*

Let AB be the given Points, between which two others are to be found directly even with them, and by means of which a Right Line may be drawn from the Point A to the Point B, with a short Ruler.

P R A C T I C E.

From the Points A and B

Make the Sections C and D.

From these Points C and D

Make the Sections G and H.

These Points G and H will be the Points required ; by the Assistance of which one may, at three times, draw a Right Line from the Point A to the Point B, which could not be done at once with a Ruler shorter than the Space between A and B.





## B O O K II.

*Of the Construction of P L A N E Figures.*

## P R O P O S I T I O N I.

*Plate 3.  
Fig. 1.*

**T**O construct an Equilateral Triangle upon a Right Line given of a determined Length.

Let AB be the Line upon which an Equilateral Triangle is to be formed.

## P R A C T I C E.

|                    |         |
|--------------------|---------|
| From the Extremity | A       |
| And the Interval   | AB      |
| Describe the Arch  | BD.     |
| From the Extremity | B       |
| And the Interval   | BA      |
| Describe the Arch  | AE.     |
| From the Section   | C       |
| Draw the Lines     | CA, CB. |

ABC will be the Equilateral Triangle required.

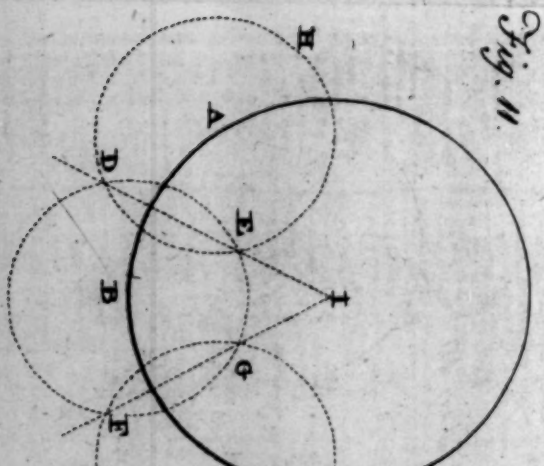
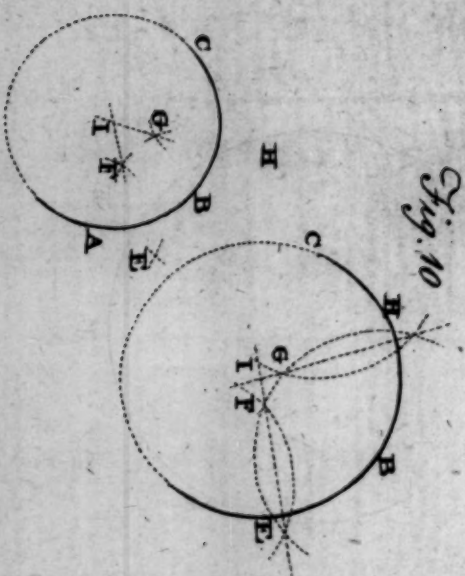
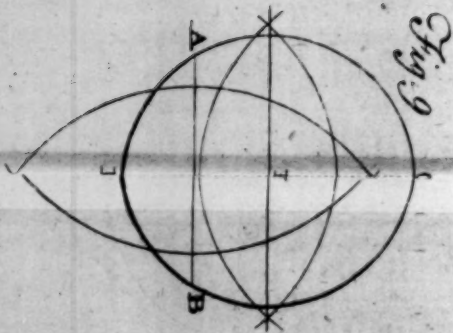
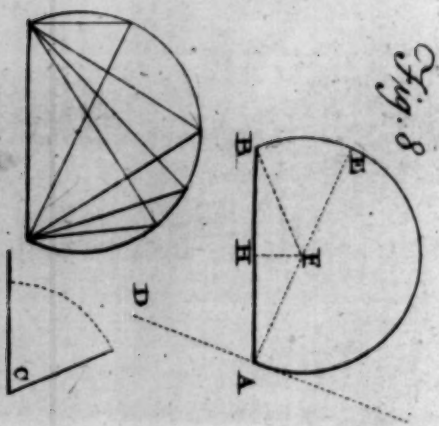
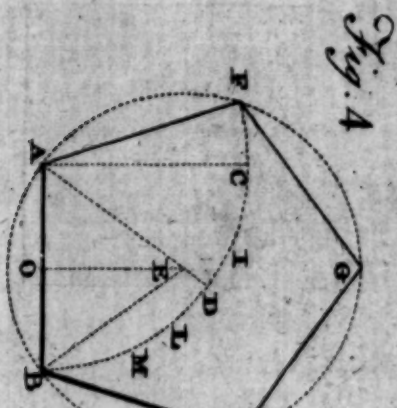
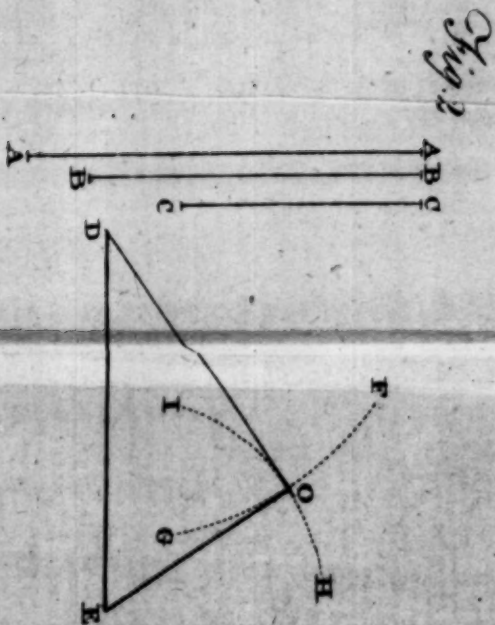
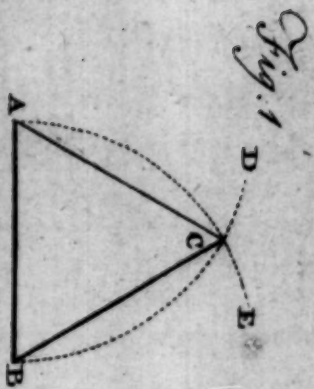
## P R O P O S I T I O N II.

*Plate 3.  
Fig. 2.*

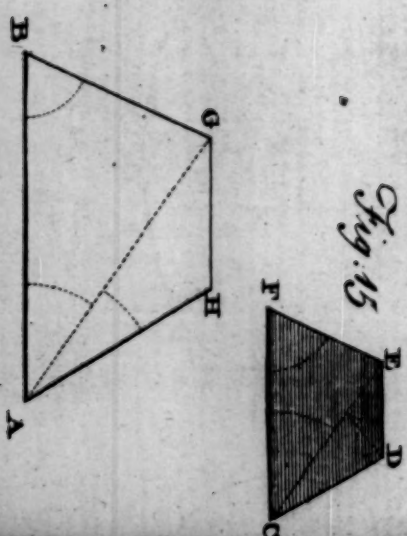
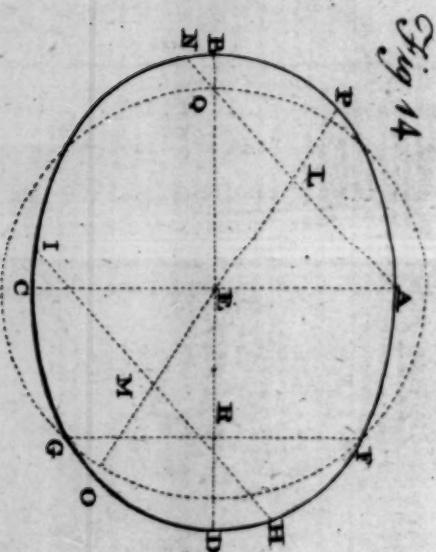
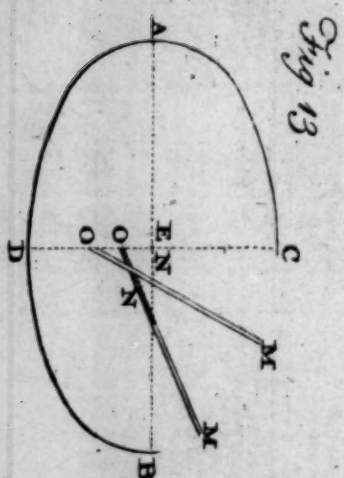
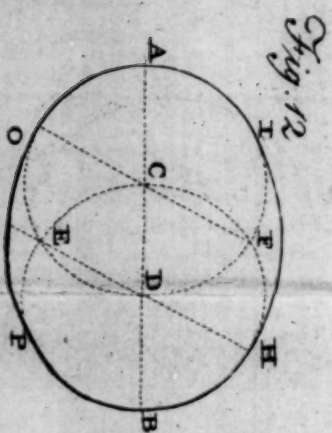
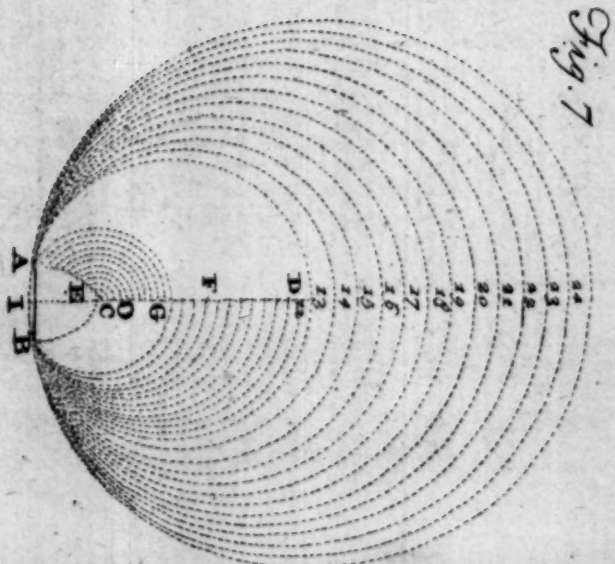
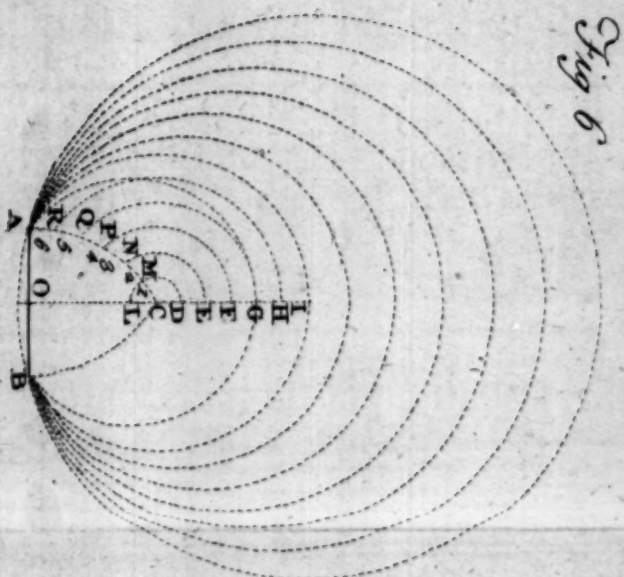
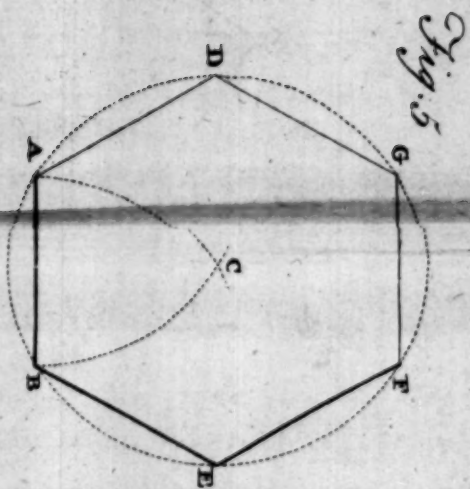
To make a Triangle of three Right Lines equal to three Right Lines given.

Let A, B, C, be the three Lines given, equal to which a Triangle of three Right Lines is to be made.

P R A C T







PRACTICE.

|                               |         |
|-------------------------------|---------|
| Draw the Right Lines          | DE      |
| Equal to the Line             | AA.     |
| From the Point                | D       |
| Taking the Length of the Line | BB,     |
| Describe the Arch             | GF.     |
| From the Point                | E       |
| Taking the Length of the Line | CC,     |
| Describe the Arch             | HI.     |
| From the Section              | O       |
| Divide the Lines              | OE, OD. |

The Triangle DEO will be composed of three Right Lines equal to the three Lines given, AA, BB, CC.

Observe, that of three Right Lines given, two of them taken together must necessarily be greater than the Third, otherwise they could not make a Triangle.

PROPOSITION III.

To draw a Square upon a Right Line given of a determined Length. *Plate 3. Fig. 3.*

Let AB be the Right Line given, of a determined Length, upon which a Square is to be formed.

PRACTICE.

|                            |         |                    |
|----------------------------|---------|--------------------|
| Raise the Perpendicular    | AC      | <i>B. 1. P. 2.</i> |
| From the Point             | A       |                    |
| Describe the Arch          | BC.     |                    |
| From the Points            | BC      |                    |
| Extending the Compasses to | A       |                    |
| Make the Section           | D.      |                    |
| From the Point             | D       |                    |
| Draw the Lines             | DC, DB. |                    |

ABCD will be the Square required, formed upon the Right Line given, AB.

PROPOSITION IV.

To draw a Regular Pentagon upon a Right Line given. *Plate 3. Fig. 4.*

Let AB be the Line given, upon which a regular Pentagon is to be formed.

P R A C -



## P R A C T I C E.

|             |                                            |       |
|-------------|--------------------------------------------|-------|
|             | From the Extremity                         | A     |
|             | Extending the Compasses to the Extremity B |       |
|             | Describe the Arch                          | BDF.  |
| B. 1. P. 2. | Raise the Perpendicular                    | AC    |
|             | Divide the Arch                            | BC    |
|             | Into five equal Parts                      | IDLM  |
|             | Draw the Right Line                        | AD    |
| B. 1. P. 6. | Divide the Base                            | AB    |
|             | Equally in two at                          | O     |
|             | Raise the Perpendicular                    | OE.   |
|             | From the Section                           | E     |
|             | Extending the Compasses to the Point A     | A     |
|             | Describe the Circle                        | ABFGH |

Then divide the Circumference of this Circle into five Parts of an equal Length with the Line AB, and you will have the Regular Equiangular Equilinear Pentagon ABFGH.

## P R O P O S I T I O N V.

To draw a Regular Hexagon upon a Right Line given.  
Let AB be the Right Line upon which an Hexagon is to be formed.

## P R A C T I C E.

|                              |         |
|------------------------------|---------|
| From the Extremities         | A and B |
| Extending the Compasses from | A to B, |
| And from                     | B to A, |
| Describe the Arches          | AC, BC. |
| From the Section             | C       |
| Describe the Circle          | ABEFG   |

Divide this Circle into six Parts of an equal Length with the Line AB, and you will have the Regular Hexagon, ABEFGD, formed upon the Right Line given AB.

## P R O P O S I T I O N VI.

Upon a Right Line given, to describe whatever Polygon you have a mind, from the Hexagon to the Duodecagon:

Let AB be the Line upon which is to be formed an Hexagon, an Heptagon, or an Octagon, &c.

P R A C-

## P R A C T I C E.

Divide the Line AB equally in two at O  
 Raise the Perpendicular OI B. i. P. 6.

From this Point B describe the Arch AC

Divide AC into six equal Parts MNPQR

This you must do if your Design is to make an Heptagon:

From the Point C and the first Division CM

Describe the Arch MD

D will be the Center from whence to describe a Circle capable of containing seven times the Line AB.

If you would make an Octagon,

From the Point C, and the 2d Division CN

Describe the Arch NE

E will be the Center from whence to describe a Circle capable of containing eight times the Line AB.

If you would describe a Nonagon, you must take three Divisions CP, and so of the others, always augmenting one Division.

## P R O P O S I T I O N VII.

Upon a Right Line given, to draw whatever Polygon you please, from 12 to one of 24 Sides.

Let AB be the Line upon which a Polygon is to be formed.

## P R A C T I C E.

Divide the Arch AC

Into twelve equal Parts

From the Point C

Take as many Divisions upon the Lines CA

As will be necessary, above twelve, to have as many Divisions of its Circle as you require Sides.

## E X A M P L E.

To make a Figure of fifteen Sides.

From the Point C

And the third Division CE

Describe the Arch EO

AC of 12, and EO of 3, will make together 15 Sides.

From the Point O and the Space OB

Describe the Arch BF

From the Point F

And the Space FA

Describe a Circle which will contain 15 times the given Line AB.

And so of the other Sorts of Polygons.

## P R O P O S I T I O N VIII.

Upon a right Line given, to describe a Portion of a Circle capable of containing an Angle equal to an Angle given.

Let AB be a Line of determined Length, upon which a Portion of a Circle is to be described, capable of containing an Angle equal to the given Angle C.

## P R A C T I C E.

|                |                                  |     |
|----------------|----------------------------------|-----|
| B. 1. Prop. 8. | Make the Angle                   | BAD |
|                | Equal to the Angle               | C   |
|                | Upon the Line                    | AD  |
| B. 1. Prop. 6. | Raise the Perpendicular          | AE  |
|                | Divide the Line                  | AB  |
| B. 1. Prop. 6. | In two equal Parts at            | H   |
|                | Raise the Perpendicular          | HF  |
|                | From the Section                 | F   |
|                | And the Space                    | FA  |
|                | Describe the Portion of a Circle | AEB |

The Angles which you shall make in this Portion of a Circle, upon the Right Line given AB, will be equal to the Angle C.

## P R O P O S I T I O N IX.

To find the Center of a given Circle.

Let ABC be the given Circle whose Center is to be found.

## P R A C T I C E.

|                |                                                            |     |
|----------------|------------------------------------------------------------|-----|
|                | Draw at Discretion the Right Line AB                       |     |
|                | Terminated by the Circumference of the                     |     |
|                | Circle                                                     | ABC |
| B. 1. Prop. 1. | Divide this Right Line                                     | AB  |
|                | In two, by the Line                                        | DC  |
|                | Also divide this Right Line                                | CD  |
|                | Into two equal Parts at                                    | F.  |
|                | The Point F will be the Center required of the Circle ABC. |     |

P R O P O S I T I O N X.

To finish a Circle begun, whose Center is lost.  
Let ABC be the given Part of a Circle, whose Center is to be found in order to finish it.

P R A C T I C E.

Place at Discretion the three Points ABC in the Circumference begun.

|                                     |         |
|-------------------------------------|---------|
| From the Points                     | A and B |
| Make the Section                    | E and F |
| Draw the Right Line                 | EF      |
| From the Points                     | B and C |
| Make the Sections                   | G and H |
| Draw the Right Lines                | GH      |
| From the Center of the Intersection | I       |
| And the Space                       | IA      |
| Finish the Circumference.           |         |

P R O P O S I T I O N XI.

To draw a Circumference through three given Points.  
Let ABC be the three Points through which the Circumference of a Circle is to pass.

P R A C T I C E.

|                                            |         |
|--------------------------------------------|---------|
| From the given Points                      | A, B, C |
| Describe the 3 Circles DEH, DEF, FGL,      |         |
| of an equal Circumference, and cutting     |         |
| each other at the Points D and E, F and G. |         |
| Then draw the Right Lines                  | DE, FG  |
| Till they meet together at                 | I.      |
| From this Point                            | I       |
| And the Space                              | IA      |
| Describe the Circumference required.       |         |

P R O P O S I T I O N XII.

To draw an Oval upon a given Length.  
Let AB be the Length upon which an Oval is to be formed.



## P R A C T I C E.

|                                   |           |
|-----------------------------------|-----------|
| Divide the given Length           | AB        |
| Into three equal Parts            | AC, DB    |
| From the Points                   | C and D   |
| And the Spaces                    | CA, DB    |
| Describe the Circles              | AEF, BEF. |
| From the Sections                 | E and F,  |
| And the Space of the Diameter     | EH,       |
| Describe the Arches               | IH, OP.   |
| AIHBPO will be the Oval required. |           |

## P R O P O S I T I O N XIII.

To draw an Oval upon two given Diameters.

AB, CD, are the Diameters upon which an Oval is to be formed.

## P R A C T I C E.

|                                        |     |
|----------------------------------------|-----|
| Make the Ruler                         | MO  |
| Equal to the great Semidiameter        | AE  |
| Upon this Rule                         |     |
| Make also the Length                   | MN  |
| Being equal to the little Semidiameter | CE. |

This Ruler being thus formed, place it in such a manner upon the Diameters

|                              |     |
|------------------------------|-----|
| That the Point               | N   |
| May be exactly upon the Line | AB, |
| And the Extremity            | O   |
| Exactly even with the Line   | CD. |

The Ruler being thus placed, keep strictly to the Directions here given with regard to its Position. Turn it round, and you will describe the Oval by the Extremity M.

## P R O P O S I T I O N XIV.

To find the Center and the two Diameters of an Oval.

Let ABCD be the Oval whose Center and Diameters are to be found.

P R A G-

P R A C T I C E.

|                                                                                            |          |
|--------------------------------------------------------------------------------------------|----------|
| In the given Oval                                                                          | ABCD     |
| Draw at Discretion                                                                         |          |
| The two parallel Lines                                                                     | AH, HI,  |
| Divide these Lines                                                                         | AN, HI,  |
| Equally in two at                                                                          | L and M. |
| Draw the Line                                                                              | PLMO     |
| Then divide it equally in two at E.                                                        |          |
| The Point E will be the Center required, from which describe at Discretion the Circle FGQ, |          |
| Cutting the Oval at                                                                        | F and G  |
| From these Sections                                                                        | F and G  |
| Draw the right Line                                                                        | FG       |
| Divide it equally in two at                                                                | R        |
| Draw the great Diameter                                                                    | BD       |
| Through the Points                                                                         | ER       |
| From the Center                                                                            | E        |
| Draw the little Diameter                                                                   | AEC      |
| Parallel to the Line                                                                       | FG       |
| Thus you have the Center, and the Diameter required.                                       |          |

P R O P O S I T I O N XV.

To construct a Rectilinear Figure upon the Right Line given of a determined Length, similar to a Rectilinear Figure given.

Let AB be the Line upon which a Figure is to be formed like to the Figure CDEF.

P R A C T I C E.

|                                   |                 |
|-----------------------------------|-----------------|
| Draw the Diagonal                 | CE              |
| Make the Angle                    | ABG             |
| Equal to the Angle                | FCE B. 1. P. 8. |
| Make the Angle                    | BAG             |
| Equal to the Angle                | CFE.            |
| The Triangle                      | ABG             |
| Will be like unto the Triangle    | CFE             |
| Also                              |                 |
| Make the Triangle                 | AGH             |
| Like the Triangle                 | CED             |
| And the whole Figure              | ABGH            |
| Will be similar to the whole Fig. | CDEF.           |



## B O O K III.

*Of the Inscription of* FIGURES.

**I**N Geometry a Figure is said to be inscribed in another, when all the Angles of the Figure inscribed touch either the Angles, Sides, or Planes of the other Figure.

## P R O P O S I T I O N I.

To inscribe an Equilateral Triangle, an Hexagon or a Dodecagon, in a given Circle.

Let ACD be the Circle in which an Equilateral Triangle, &c. is to be described.

## P R A C T I C E.

For the Equilateral Triangle.

|                                           |         |
|-------------------------------------------|---------|
| From the Point                            | A       |
| Extend the Compasses to the Semi-Diameter | AB      |
| And describe the Arch                     | CBD     |
| Draw the Right Line                       | CD      |
| Extend this Space of the Compasses        | CD      |
| From the Point                            | C       |
| To the Point                              | F       |
| Draw the Lines                            | FC, FD. |

CDF will be the Triangle required.

*For the* H E X A G O N.

Mark the Semidiameter AB six times round the given Circumference.

*For the* D O D E C A G O N.

Divide the Arch of the Hexagon AC equally in two at O, AO will be a single Side of the Dodecagon required.



Fig. 1

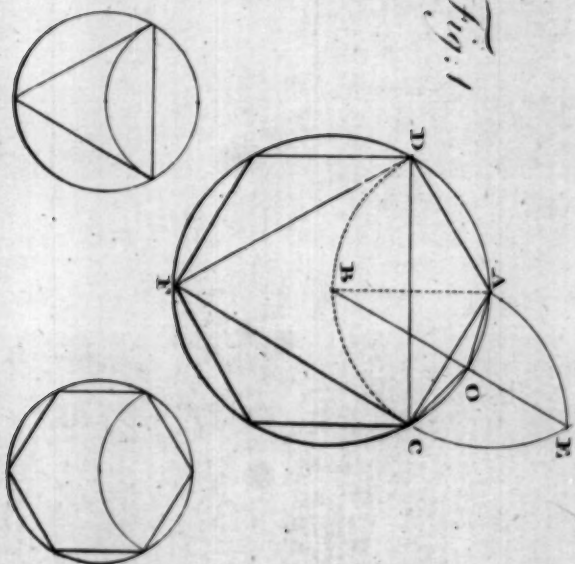


Fig. 2

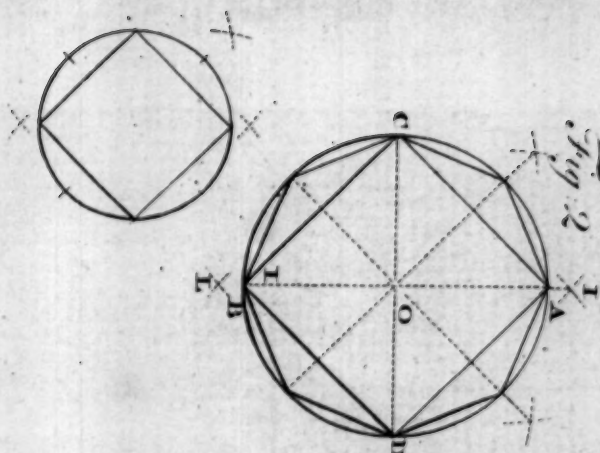


Fig. 3

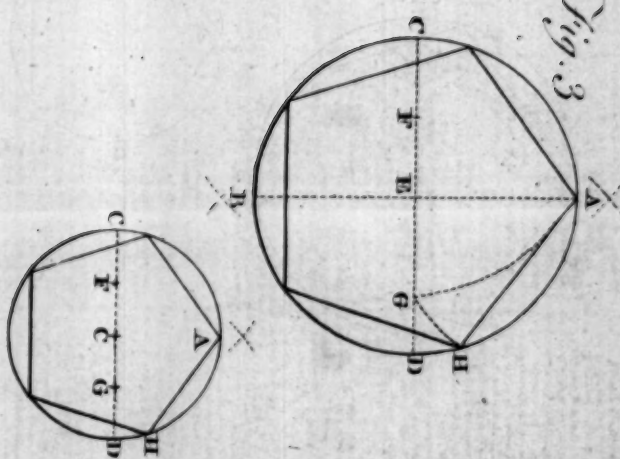


Fig. 8

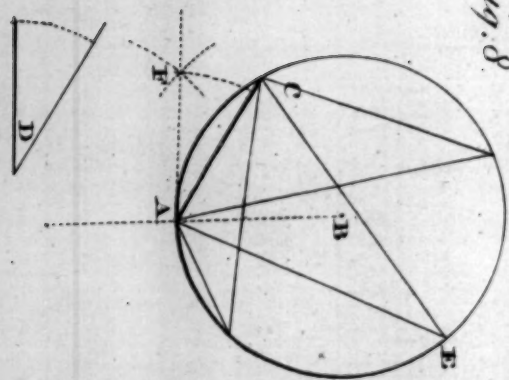


Fig. 9

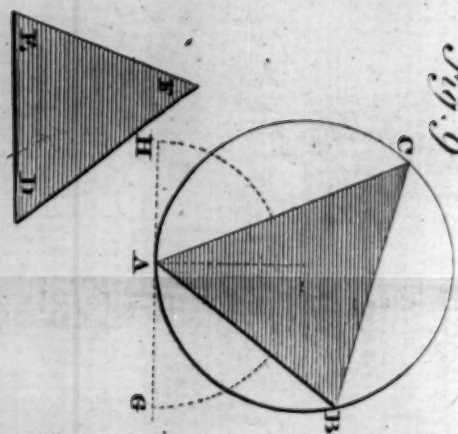


Fig. 10

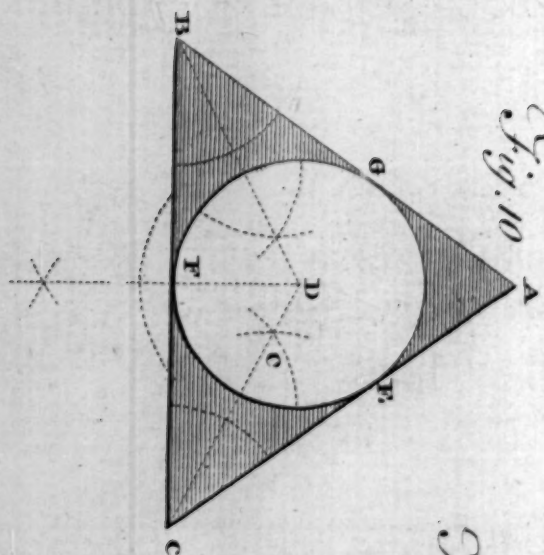


Fig. 11

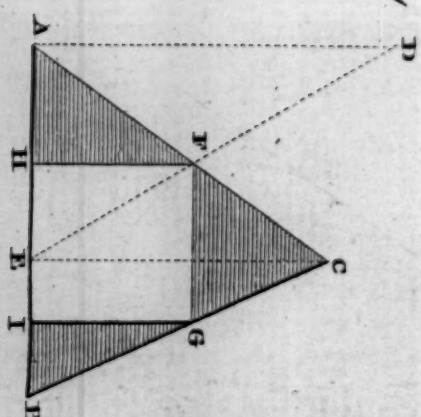




Fig. 4

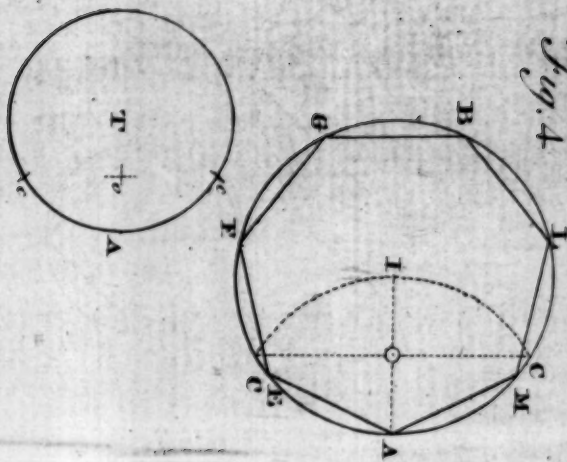


Fig. 5

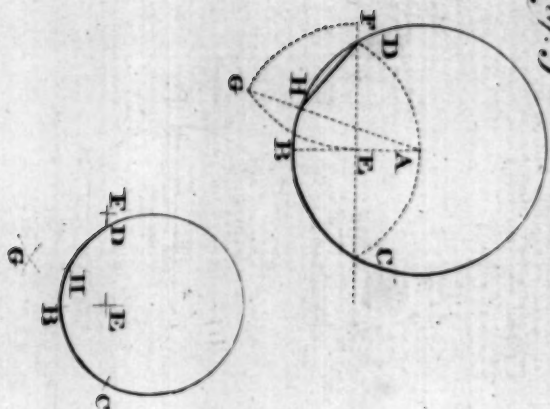


Fig. 6

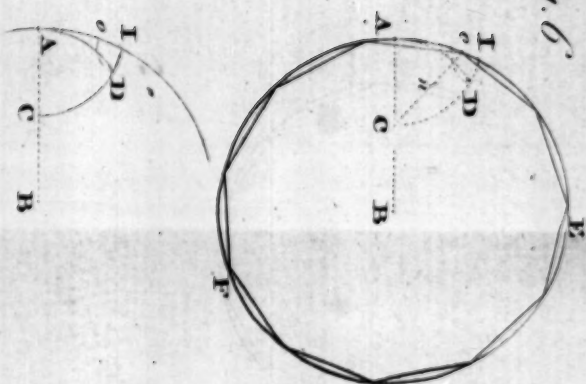


Fig. 7

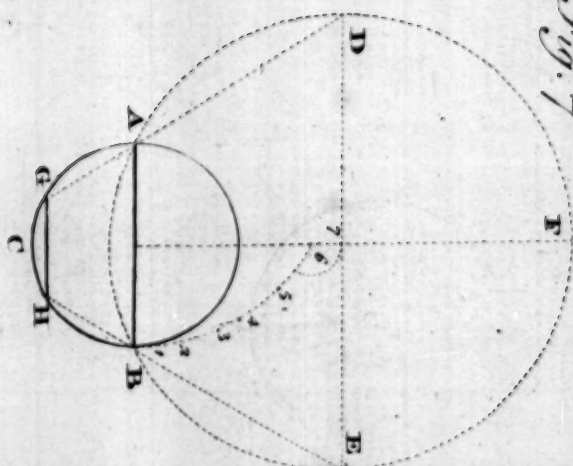


Fig. 12

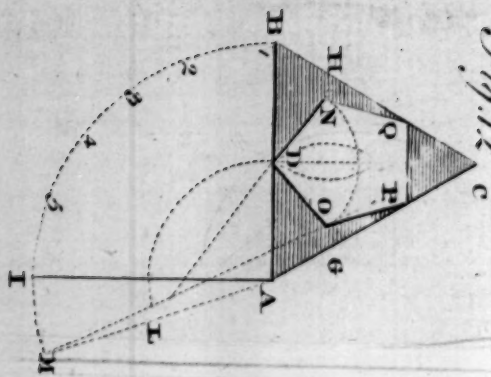


Fig. 13

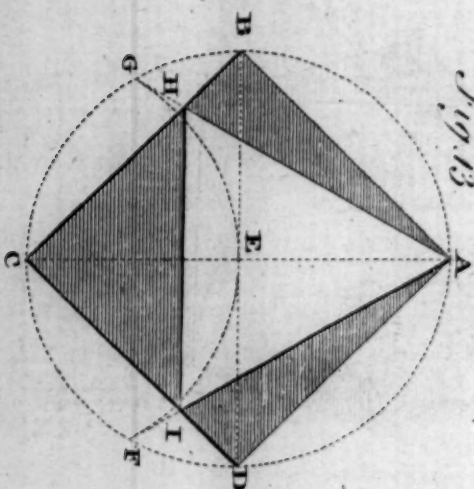


Fig. 14

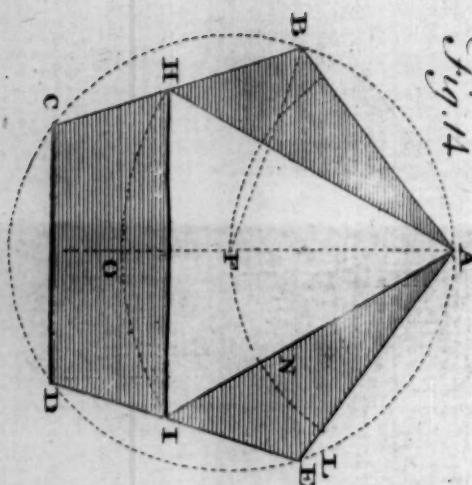
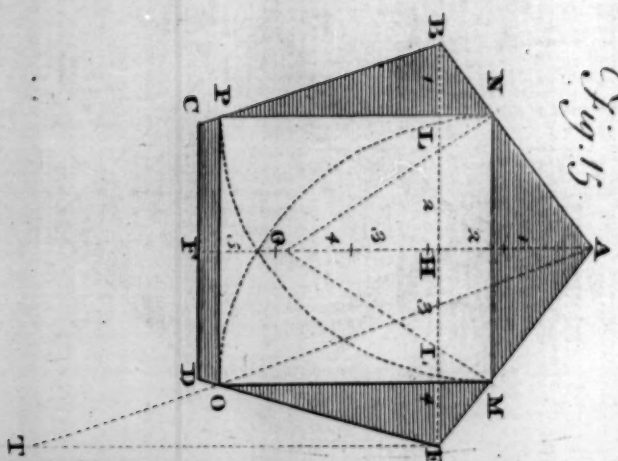


Fig. 15



P R O P O S I T I O N II.

To inscribe a Square and an Octagon in a given Circle.  
Let ABCD be the Circle in which a Square and an Octagon  
are to be inscribed.

P R A C T I C E.

*For the S Q U A R E.*

Draw the two Diameters AB, CD  
Cutting each other at Right Angles ; that  
is, draw the Right Line CD  
Through the Center of the Circle O  
Then from the Points or Extremities C & D  
Make the Sections I and L  
Then draw the Right Line IL  
Through the Center O  
Thus these Lines or Diameters AB, CD,  
Cutting each other at Right Angles, draw  
the Lines AC, AD, BC, BD.  
And ABCD will be the Square required.

*For the O C T A G O N.*

Subdivide each Quarter of the Circle in two, and you will  
have the Octagon.

P R O P O S I T I O N III.

To inscribe a Pentagon and a Decagon in a given Circle.  
Let ABCD be the given Circle.

P R A C T I C E.

Draw the two Diameters AB, CD  
Cutting each other at Right Angles in E.  
Divide the Semidiameter CE  
Equally in two at F.  
From this Point F  
And the Space FA  
Describe the Arch AG  
From the Point A  
And the Space AG  
Describe the Arch GH  
The Right Line AH  
will divide the Circle in five equal Parts.

*For the DECAGON.*

Subdivide each fifth Part of the Circle equally in two.

*P R O P O S I T I O N IV.*

To inscribe an Heptagon in a given Circle.

Let ABC be the Circle in which an Heptagon is to be inscribed.

*P R A C T I C E.*

|                       |      |
|-----------------------|------|
| Draw the Semidiameter | IA   |
| From the Extremity    | A    |
| And the Space         | AI   |
| Describe the Arch     | CIC. |
| Draw the Right Line   | CC   |
| The half of which     | CO   |

will divide the Circumference of the Circle into seven equal Parts, which gives the Heptagon required.

*P R O P O S I T I O N V.*

To inscribe a Nonagon in a given Circle.

Let BCD be the given Circle in which a Nonagon is to be inscribed.

*P R A C T I C E.*

|                       |     |
|-----------------------|-----|
| Draw the Semidiameter | AB  |
| From the Extremity    | B   |
| And the Space         | BA  |
| Describe the Arch     | CAD |
| Draw the Right Line   | CD  |
| Prolonged towards     | F.  |
| Make the Line         | EF  |
| Equal to the Line     | AB  |
| From the Point        | E   |
| Describe the Arch     | FG  |
| From the Point        | F   |
| Describe the Arch     | EG  |
| Draw the Right Line   | AG  |

DH will be the ninth Part of the Circumference, which therefore gives you the Nonagon required.

*P R O-*



P R O P O S I T I O N VI.

To inscribe an Undecagon in a given Circle.

Let AEF be the given Circle in which an Undecagon is to be inscribed,

P R A C T I C E.

|                          |                |
|--------------------------|----------------|
| Draw the Semidiameter    | AB B. 1. P. 6. |
| Divide this Semidiameter | AB             |
| Equally in two at        | C              |
| From the Points          | A and C        |
| And the Space            | AC             |
| Describe the Arches      | CDI, AD.       |
| From the Point           | I              |
| And the Space            | ID             |
| Describe the Arch        | DO.            |

The Length CO will be an exact Side of the Undecagon required.

P R O P O S I T I O N VII.

In a given Circle to inscribe whatever Polygon you please.

Let BAC be a Circle in which you would inscribe an Heptagon.

P R A C T I C E.

|                                                                   |                |
|-------------------------------------------------------------------|----------------|
| Draw the Diameter                                                 | AB             |
| Describe the Circle                                               | ABF            |
| Capable of containing seven times                                 | AB B. 2. P. 5. |
| As if you would form upon the Line                                | AB 6, 7, 8.    |
| A Polygon like that which you are to inscribe in the given Circle | ABC            |
| Draw the Diameter                                                 | DB             |
| Parallel to the Diameter                                          | AB             |
| Draw the Right Lines                                              | DAG, EBH       |
| Through the Extremities                                           | DA, EB.        |
| GH will divide the given Circle                                   | ABC            |
| Into seven equal Parts.                                           |                |

And thus of all other Polygons,



## P R O P O S I T I O N VIII.

To take a Portion from a given Circle, capable of containing an Angle equal to a Rectilinear Angle given.

Let ACE be the given Circle, from which a Portion is to be taken, capable of containing an Angle equal to the Angle D.

## P R A C T I C E.

|                                                     |     |
|-----------------------------------------------------|-----|
| Draw the Semidiameter                               | AB  |
| <i>E. 1. P. 10.</i> Draw the Touching Line          | AF  |
| Make the Angle                                      | FAC |
| <i>E. 1. P. 8.</i> Equal to the given Angle         | D   |
| All the Angles which shall be formed upon the Line  | AC  |
| And in the Portion                                  | AEC |
| Will be the given Angle                             | D.  |
| And thus the Portion AEC answers what was required. |     |

## P R O P O S I T I O N IX.

To inscribe a Triangle in a given Circle, equiangular to a Triangle given.

Let ABC be the Circle in which a Triangle is to be inscribed like the Triangle DEF.

## P R A C T I C E.

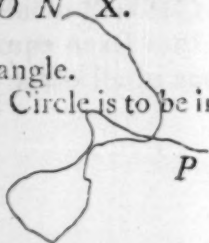
|                                                            |     |
|------------------------------------------------------------|-----|
| <i>E. 1. P. 10.</i> Draw the Touching Line                 | GH  |
| From the Point where it touches                            | A   |
| Make the Angle                                             | HAC |
| <i>E. 1. P. 8.</i> Equal to the Angle                      | E.  |
| Make also the Angle                                        | GAB |
| <i>E. 1. P. 8.</i> Equal to the Angle                      | D   |
| Draw the Line                                              | BC. |
| ABC is the Triangle required, like the given Triangle DEF. |     |

## P R O P O S I T I O N X.

To inscribe a Circle in a given Triangle.

Let ABC be the Triangle in which a Circle is to be inscribed.

P R A C-



P R A C T I C E.

|                               |                            |
|-------------------------------|----------------------------|
| Divide each of the two Angles | B and C                    |
| Equally in two                |                            |
| By the Right Lines            | BD, CD. <i>B. 1. P. 7.</i> |
| From the Section              | D                          |
| Bring down the Perpendicular  | DF.                        |
| From the Section or Center    | D <i>B. 1. P. 4.</i>       |
| And the Space                 | DF,                        |
| Describe the Circle required  | EFG.                       |

P R O P O S I T I O N X I.

To inscribe a Square in a given Triangle.  
 Let ABC be the Triangle in which a Square is to be inscribed.

P R A C T I C E.

|                                   |                        |
|-----------------------------------|------------------------|
| Raise the Perpendicular           | AD. <i>B. 1. P. 2.</i> |
| At the Extremity A of the Base    | AB                     |
| Make this Perpendicular           | AD                     |
| Equal to the Base                 | AB.                    |
| From the Angle                    | C                      |
| Draw the Line                     | CE <i>B. 1. P. 5.</i>  |
| Parallel to the Line              | AD.                    |
| Draw the oblique Line             | DE                     |
| From the Section                  | F                      |
| Draw the Line                     | FG                     |
| Parallel to the Base              | AB.                    |
| Draw the Lines                    | FH, GI                 |
| Parallel to the Line              | CE                     |
| FGHI will be the Square required, |                        |

P R O P O S I T I O N X I I.

To inscribe a regular Pentagón in an Equilateral Triangle.  
 Let ABC be the Triangle in which a Pentagon is to be inscribed.

P R A C -

## P R A C T I C E.

- B. 1. P. 4.* Bring down the Perpendicular AI  
 From the Center A  
 Describe the Arch BIM  
 Divide into five equal Parts the Arch BI.  
 Mark also a sixth Part IM  
 Draw the Line AM  
 Divide AM
- B. 1. P. 6.* Into two equal Parts at L.  
 From the Point A  
 Describe the Arch LD  
 Draw the Right Line LD to H.  
 Make the Part AG  
 Equal to the Part BH.  
 Draw the Right Lines DG, MC.  
 From the Center D  
 And the Space of the Section N  
 Describe the Arch NO.  
 From the Points NO  
 Describe the Arches PQ, DP.  
 Draw the Lines O, PQ, NQ
- DOPNQ will make the Pentagon required.

## P R O P O S I T I O N XIII.

To inscribe an Equilateral Triangle in a Square.

Let ABCD be the Square in which an Equilateral Triangle is to be formed,

## P R A C T I C E.

- Draw the Diagonals AC, BD.  
 From the Center E  
 And the Space EA  
 Describe the Circle ABCD.  
 From the Point C  
 And the Space CE  
 Describe the Arch GEF.  
 Draw the Right Lines AF, AG  
 Draw the Right Line HI.
- AHI will be the Equilateral Triangle required.

P R O-

P R O P O S I T I O N XIV.

To inscribe an Equilateral Triangle in a Pentagon.  
Let ABCDE be the Pentagon in which an Equilateral Triangle is to be inscribed.

P R A C T I C E.

|                                   |                    |
|-----------------------------------|--------------------|
| Circumscribe the Circle           | ABCDE. B. 2. P 11. |
| From the Point                    | A                  |
| And the Space of the Semidiameter | AF                 |
| Describe the Arch                 | FL.                |
| Divide this Arch                  | FL                 |
| Equally in two at                 | N.                 |
| Draw the Line                     | ANI.               |
| From the Point                    | A                  |
| And the Space                     | AI                 |
| Describe the Arch                 | IOH                |
| Draw the Lines                    | AH, HI.            |

AHI will be the Triangle required.

P R O P O S I T I O N XV.

To inscribe a Square in a Pentagon.  
Let ABCDE be the Pentagon in which a Square is to be inscribed.

P R A C T I C E

|                              |         |
|------------------------------|---------|
| Draw the Right Line          | BE      |
| At the Extremity             | E       |
| Bring down the Perpendicular | ET.     |
| Make this Perpendicular      | ET      |
| Equal to the Line            | BE      |
| Draw the Line                | AT      |
| From the Section             | O       |
| Draw the Line                | OP      |
| Parallel to the Side         | CD.     |
| At the Extremities           | O and P |
| Raise the Perpendiculars     | OM, PN. |
| Draw the Line                | NM.     |

NMOP will be the Square required.





## B O O K IV.

*Of the Circumscription of FIGURES.*

**A** Figure is said to be circumscribed, when either the Angles, Sides, or Planes of the circumscribed Figure touch all the Angles of the Figure that is inscribed.

## P R O P O S I T I O N I.

To circumscribe a Circle round a given Triangle.

Let ABC be the Triangle round which a Circle is to be circumscribed.

## P R A C T I C E.

|                                        |      |
|----------------------------------------|------|
| Describe the Circumference             | ABC  |
| From the three Points                  | ABC, |
| And you will have the Circle required. |      |

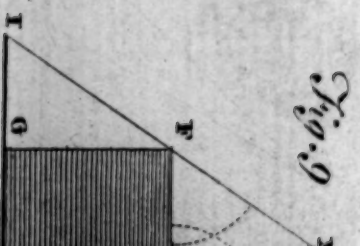
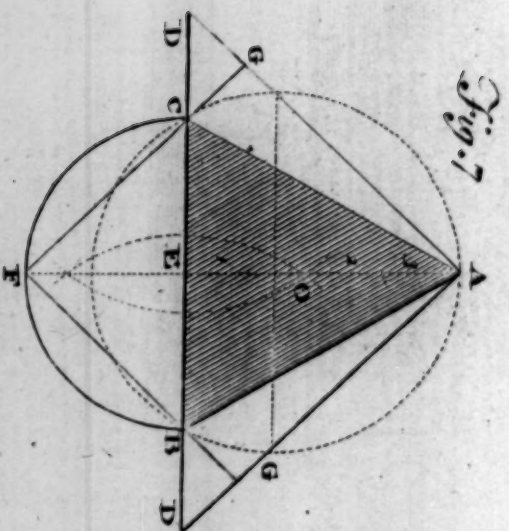
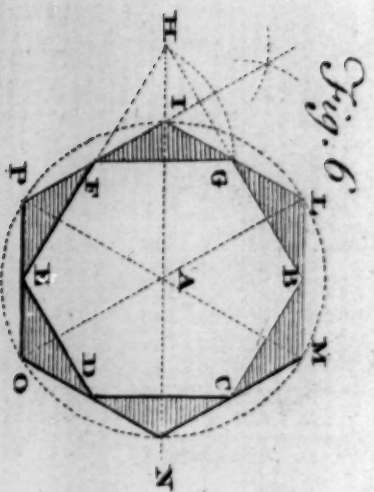
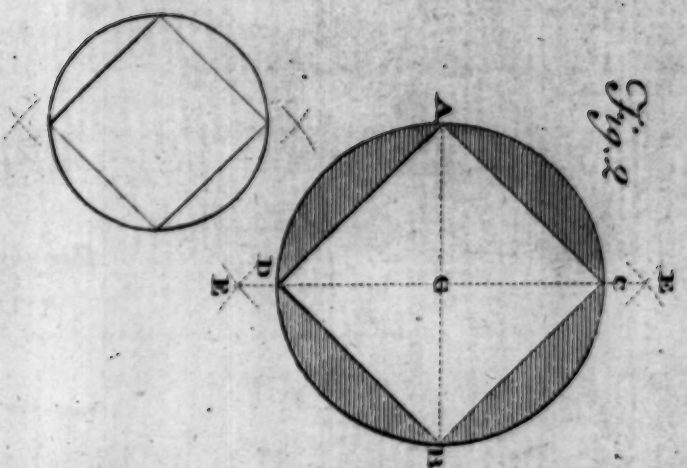
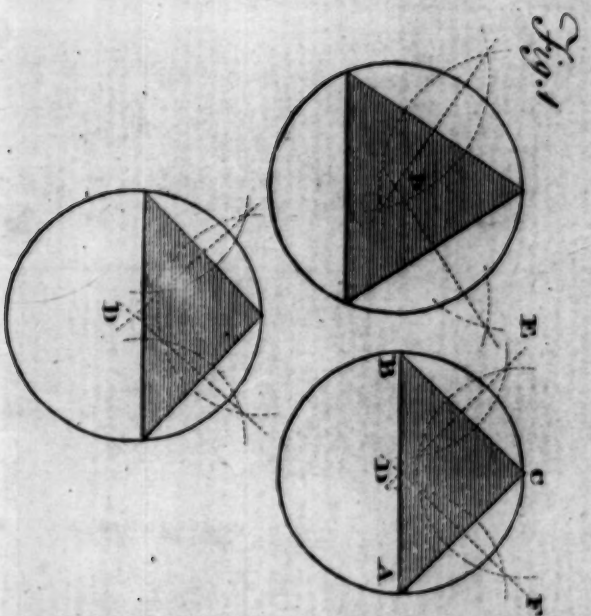
## P R O P O S I T I O N II.

To circumscribe a Circle round a given Square.

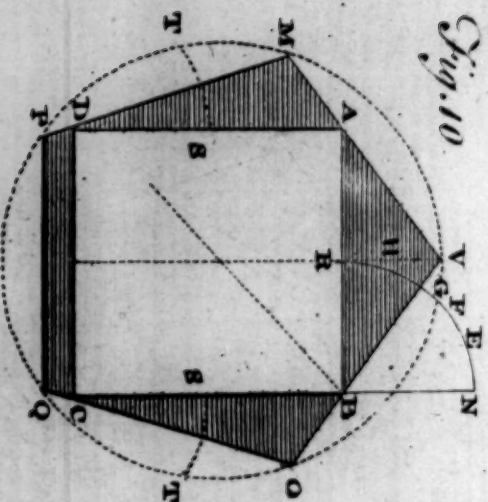
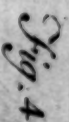
Let ABCD be the Square round which a Circle is to be circumscribed.

## P R A C T I C E.

|                              |         |
|------------------------------|---------|
| Draw the two Diagonals       | AB, CD. |
| From the Section or Center   | G       |
| And the Space                | GA      |
| Describe the Circle required | ABCD.   |







P R O P O S I T I O N III.

To circumscribe a Triangle round a Circle, equiangular to a Triangle given.

Let DEV be the Circle round which a Triangle is to be formed like the Triangle FGH.

P R A C T I C E.

|                          |                        |
|--------------------------|------------------------|
| Draw the Diameter        | AB                     |
| Through the Center       | C.                     |
| Make the Angle           | ACE <i>B. 1. P. 8.</i> |
| Equal to the Angle       | H.                     |
| Make the Angle           | BCD                    |
| Equal to the Angle       | G.                     |
| Prolong these Lines      | EC, DC                 |
| Towards                  | R and S.               |
| Draw the Tangent Line    | NO <i>B. 1. P. 5.</i>  |
| Parallel to the Line     | DR.                    |
| Draw the Tangent Line    | OI                     |
| Parallel to the Line     | ES.                    |
| Draw also the Line       | NI                     |
| Parallel to the Diameter | AB.                    |

INO will be the Triangle required, equiangular to the Triangle FGH, and circumscribed round the Circle DEV.

P R O P O S I T I O N IV.

To circumscribe a Square round a Circle.

Let ABCD be the Circle round which a Square is to be circumscribed.

P R A C T I C E.

|                                             |             |
|---------------------------------------------|-------------|
| Draw the Diameters                          | AB, CD.     |
| Cutting each other at Right Angles in O.    |             |
| From the Points                             | A, B, C, D. |
| And the Space                               | AO          |
| Describe the Semicircle HOG, HOE, EOF, FOG. |             |
| Draw the Right Lines EF, FG, GH, HE.        |             |
| Through the Sections                        | E, F, G, H. |
| E, F, G, H, will be the Square required.    |             |

P R O-



## P R O P O S I T I O N V.

To circumscribe a Pentagon round a given Circle:

Let ABCDE be the Circle round which a Pentagon is to be circumscribed.

## P R A C T I C E.

|                                           |                     |
|-------------------------------------------|---------------------|
| B. 3. P. 3. Inscribe the Pentagon         | ABCDE.              |
| From the Center                           | F                   |
| And thro' the Middle of each of its Sides |                     |
| Draw the Lines                            | FO, FP, FQ, FR, FS. |
| Draw the Line                             | FA                  |
| Draw the Tangent Line                     | PQ                  |
| Through the Point                         | A                   |
| From the Center                           | F                   |
| And with the Interval                     | FP                  |
| Describe the Circle                       | OPQRS.              |

Then draw the Sides of the Pentagon required through the Sections  
OPQRS.

## P R O P O S I T I O N VI.

To circumscribe a Regular Polygon round a Regular Polygon:

Let BCDEFG be the given Polygon, round which a like Polygon is to be circumscribed.

## P R A C T I C E.

|                                  |                 |
|----------------------------------|-----------------|
| Prolong two of the Sides, as     | BG, EF,         |
| Till they intersect at           | H.              |
| Draw the Line                    | AH              |
| Draw the Line                    | FI              |
| B. 1. P. 7. Cutting the Angle    | GFH             |
| Equally in two                   |                 |
| From the Center                  | A               |
| And the Space                    | AI              |
| Describe the Circle              | IMO.            |
| Draw the Radiuses                | AL, AM, AN, AO, |
| Through the Middle of each Side. |                 |

Then draw the Sides of the exterior Polygon required thro' the Sections.  
ILMNOP.

PROPOSITION VII.

To circumscribe a Square round an Equilateral Triangle.  
ABC is an Equilateral Triangle round which a Square is  
to be circumscribed.

PRACTICE.

|                          |          |
|--------------------------|----------|
| Draw the Base            | BC       |
| Equally in two at        | E        |
| Prolong this Base        | BC       |
| From both Ends towards   | D and D. |
| Make the Lines           | ED, ED   |
| Equal to the Line        | EA.      |
| From the Point           | E        |
| And the Space            | EC       |
| Describe the Semi-Circle | BFC      |
| Draw the Line            | AEF      |
| From the Point           | F        |
| Draw the Lines           | FG, FBG. |

AGFG will be the Square required.

PROPOSITION VIII.

To circumscribe a Pentagon round an Equilateral Triangle.  
ABC is the given Triangle round which a Pentagon is to be  
circumscribed.

PRACTICE.

|                                                  |                |
|--------------------------------------------------|----------------|
| From the Points or Angles                        | ABC            |
| And with the same Opening of the Com-<br>passes, |                |
| Describe at Discretion the Arches DI, LP, HE.    |                |
| Divide the Arch                                  | DO             |
| Into five equal Parts                            | 1, 2, 3, 4, 5. |
| From the Center or Section                       | O              |
| And with the Space to the 4th Division           | ON             |
| Describe the Arch                                | NZE.           |
| Draw the Right Line                              | AEF            |
| Draw the Arch                                    | MP             |
| Equal to the Arch                                | EN             |
| Draw the Right Line                              | PCG            |
| Equal to the Line                                | FA             |
| Make the Arch                                    | DH             |
| Equal to the Arch                                | DE             |
| Draw the Sides                                   | AI, IR         |
| Equal to the Sides                               | AF, BG.        |

The Side GR will finish the Pentagon required.

## P R O P O S I T I O N IX.

To circumscribe a Triangle round a Square, equiangular to a Triangle given.

Let DEFG be the Square, round which a Triangle is to be formed, like the Triangle ABC.

## P R A C T I C E.

|                                |            |
|--------------------------------|------------|
| Make the Angle                 | AFM        |
| B. 1. P. 8. Equal to the Angle | A          |
| Make the Angle                 | MEF        |
| Equal to the Angle             | B          |
| Prolong the Lines              | ME, MF, MD |
| Towards                        | I and H.   |

MHI will be the Triangle required, like the Triangle ABC, and circumscribed round the given Square DEFG.

## P R O P O S I T I O N X.

To circumscribe a Pentagon round the Square.

ABCD is a Square, round which a Pentagon is to be circumscribed.

## P R A C T I C E.

|                                 |               |
|---------------------------------|---------------|
| Prolong the Side                | BC            |
| Towards                         | N             |
| Divide the Side                 | AB            |
| Equally in two at               | R             |
| Raise the Perpendicular         | RV            |
| From the Points                 | BCD           |
| And with the same Space         | BR            |
| Draw the Arches                 | RN, ST, ST.   |
| Divide the Arch                 | RN            |
| Into five equal Parts           | RHGFEN        |
| Make the Angle                  | RBV           |
| With the Space of two Divisions | RG            |
| Make the Angles                 | SCT, SDT      |
| With the Space of one Division  | RH            |
| Prolong the Lines               | VB, CT, to O. |
| Make the Line                   | OQ            |
| Equal to the Line               | OV.           |

Draw the others in the same Manner, and you will have the Pentagon required.



Fig. 1

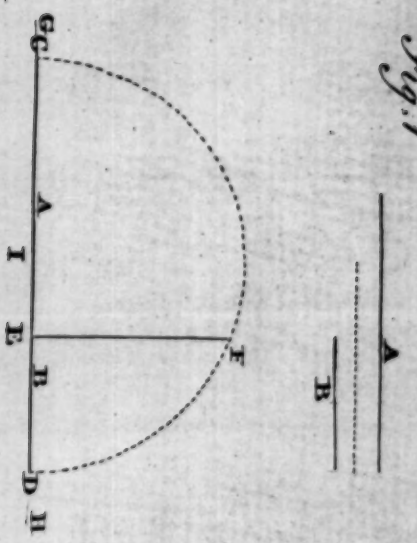


Fig. 2

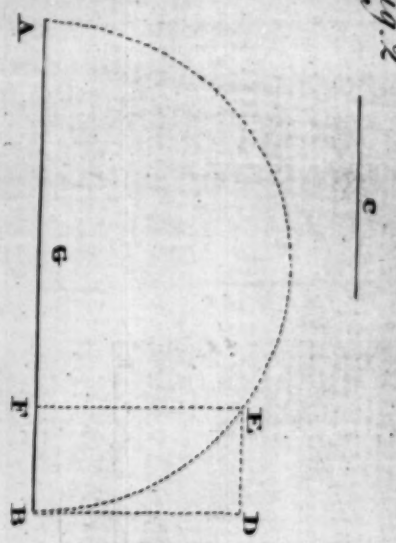


Fig. 3

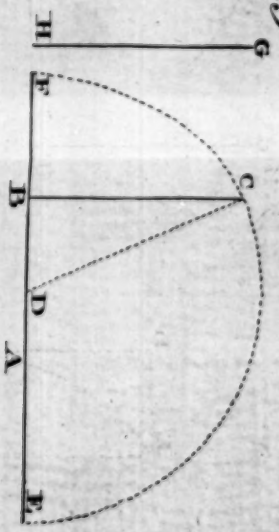


Fig. 7

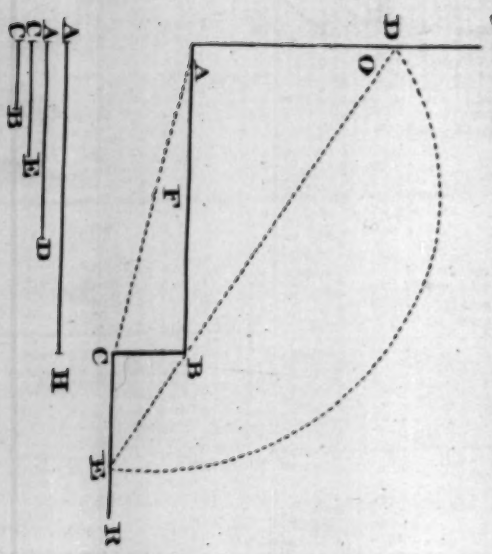


Fig. 8

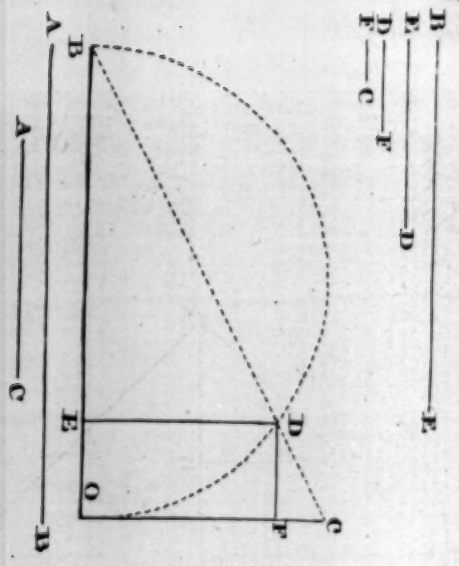


Fig. 9

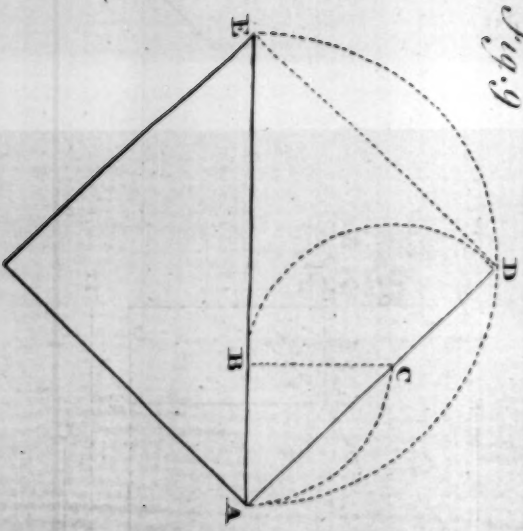




Fig. 4

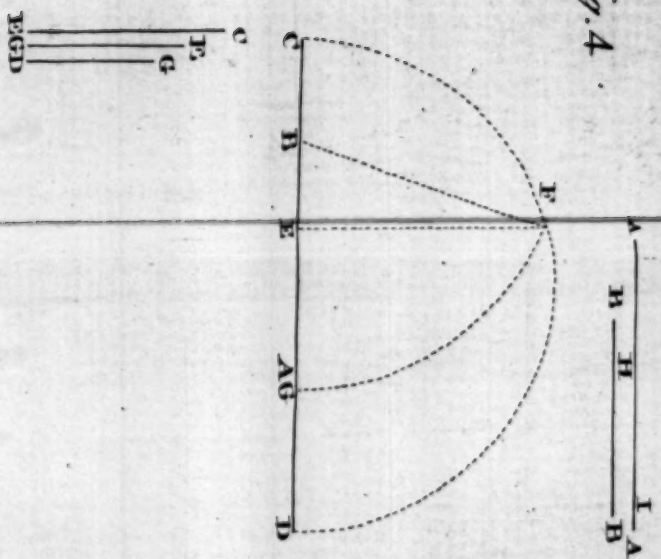


Fig. 5

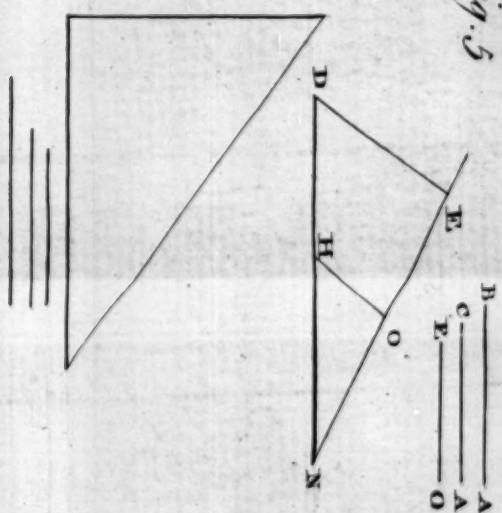


Fig. 6

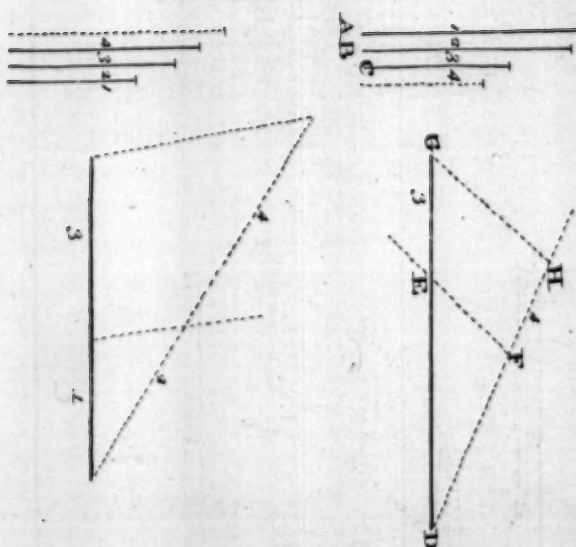


Fig. 10

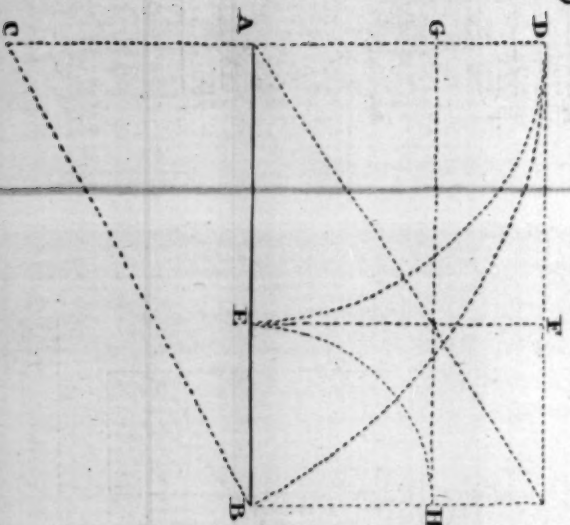


Fig. 11

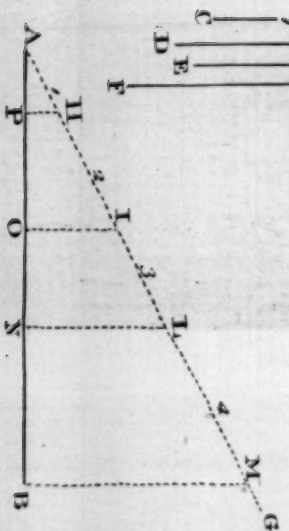
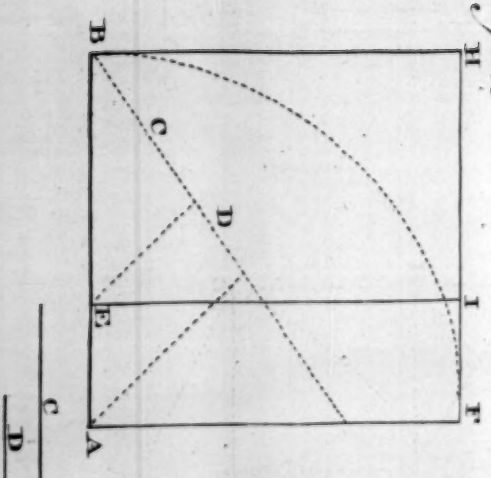


Fig. 12





# B O O K V.

## Of PROPORTIONAL LINES.

### P R O P O S I T I O N I.

**T**O find a mean Proportional between two given Lines.  
Let A and B be the Lines between which a mean Proportional is to be found.

### P R A C T I C E.

|                                       |     |
|---------------------------------------|-----|
| Draw a Line of an undetermined Length | GH  |
| Make                                  | CE  |
| Equal to the Line                     | A   |
| Make                                  | ED  |
| Equal to the Line                     | B   |
| Divide                                | CD  |
| Equally in two at                     | I   |
| From this Point                       | I   |
| With the Space                        | IC  |
| Describe the Semi-Circle              | CFD |
| Raise the Perpendicular               | EF  |

This Line EF will be a mean Proportional between A and B.

### P R O P O S I T I O N II.

The whole of two Extremes being given, and the mean Proportional, to distinguish each Extreme.

Let AB be the Extent of the two Extremes (that is, two Lengths joined together without Distinction), to which the Line C is meant a Proportional, and by which the Point where the two Extremes meet is to be found.

## P R A C T I C E.

|                                  |     |
|----------------------------------|-----|
| Divide the whole Line            | AB  |
| Equally in two at                | G   |
| B. 1. P. 6. From this Point      | G   |
| With the Space                   | GA  |
| Describe the Semicircle          | AEB |
| Raise the Perpendicular          | BD  |
| Equal to the mean                | C   |
| Draw the Line                    | DE  |
| B. 1. P. 5. Parallel to the Line | AB  |
| From the Section                 | E   |
| Draw the Line                    | EF  |
| Parallel to the Line             | BD  |

F will be the Point where the Extremes meet, and thus C, or its Equal EF, will be a Mean between the Extremes AF and FB.

## P R O P O S I T I O N III.

The mean Proportional between two Lines being given, and the Difference of the Extremes, to find the Extremes.

Let GH be the mean Proportional, and AB the Difference of the Extremes whose Length is to be found.

## P R A C T I C E.

|                                        |          |
|----------------------------------------|----------|
| Raise the Perpendicular                | BC       |
| At the Extremity of the Difference     | AB       |
| And equal to the mean                  | GH       |
| Divide the Difference                  | AB       |
| Equally in two at                      | D        |
| Prolong it towards                     | E and F. |
| From the Point                         | D        |
| With the Space                         | DC       |
| Describe the Semicircle                | ECF.     |
| BE, BF, will be the Extremes required. |          |

## P R O P O S I T I O N IV.

From a Right Line given, to take a Part, which shall be a mean Proportional between the Remainder and another Right Line given.

Let AA be the Line from whence a Part is to be taken, which shall be a mean Proportional between the Part remaining and the given Line BB.

P R A C-



P R A C T I C E.

|                            |           |
|----------------------------|-----------|
| Draw the undetermined Line | CD        |
| Draw the Lines             | CE, ED    |
| Equal to the Lines         | BB and AA |
| Describe the Semicircle    | CFD       |
| Raise the Perpendicular    | EF        |
| Divide the Line            | CE        |
| Equally in two at          | B         |
| From this Point            | B         |
| With the Space             | BF        |
| Describe the Arch          | FG        |
| Take off the Part required | AH        |
| Equal to the Part          | EG.       |

AH will be the mean Proportional between the Remainder  
HI, and the other Line proposed BB

P R O P O S I T I O N V.

Two right Lines being given, to find a third Proportional.  
AB, AC, are the two given right Lines, to which a third  
Proportional is to be found.

P R A C T I C E.

|                              |      |
|------------------------------|------|
| Make at Discretion the Angle | DNE. |
| Take off the Part            | NH   |
| Equal to the Line            | AB   |
| Take off the Part            | NO   |
| Equal to the Line            | AC   |
| Also take off                | HD   |
| Equal to the Line            | AC   |
| Draw the Line                | HO   |
| Draw the Line                | DE   |
| Parallel to the Line         | HO.  |

EO will be the third Proportional required.

P R O P O S I T I O N VI.

To find a fourth Proportional.  
ABC are the three given Lines, to which a fourth is  
to be found, which shall be to the third, as the second is to  
the first.



## P R A C T I C E.

|                              |     |
|------------------------------|-----|
| Make at Discretion the Angle | GDH |
| Cut off the Part             | DE  |
| Equal to the Line            | A   |
| Cut off the Part             | DF  |
| Equal to the Line            | B   |
| Cut off the Part             | EG  |
| Equal to the Line            | C   |
| Draw the Line                | EF  |
| Draw the Line                | GH  |
| Parallel to the Line         | EF. |

FH will be the fourth Proportional required.

## P R O P O S I T I O N VII.

Between two right Lines given, to find the mean Proportionals.

Let AH and CB be the given Lines between which two mean Proportionals are to be found.

## P R A C T I C E.

|                                 |        |
|---------------------------------|--------|
| Draw the Line                   | AB     |
| Equal to the Line               | AH     |
| Bring down the Perpendicular    | BC     |
| Equal to the Line               | CB     |
| Draw the Line                   | AC     |
| Divide this Line                | AC     |
| Equally in two at               | F      |
| Raise the Perpendiculars        | AO, CR |
| From the Point or Center        | F      |
| Describe the Arch               | DE     |
| In such a manner that the Chord | DE     |
| May touch the Angle             | B.     |

AD, CE, will be the mean Proportionals to the given Lines AH, CB.

## P R O P O S I T I O N VIII.

Two right Lines being given, to divide each of them in two, in such a manner that the four Segments shall be proportional.

AB, AC, are the Lines proposed to be divided according to the Proposition.

P R A C -

P R A C T I C E.

|                              |     |
|------------------------------|-----|
| Make the Right Angle         | BOC |
| Make the Line                | BO  |
| Equal to the Line            | AB  |
| Make the Line                | OC  |
| Equal to the Line            | AC  |
| Draw the Subtense            | BC  |
| Describe the Semicircle      | BDO |
| From the Section             | D   |
| Draw the Line                | DE  |
| Parallel to the Line         | CO  |
| The Line                     | DF  |
| Parallel to the Line         | EO  |
| AB will be divided at        | E   |
| OC will also be divided at   | F.  |
| So that BE will be to        | ED  |
| As ED is to DF, and ED to DF |     |
| As DF is to FC.              |     |

P R O P O S I T I O N IX.

The Excess of the Diagonal of a Square above its Side being given, to find the Length of the said Side.

Let AB be the Excess of the Diagonal of a Square above its Side, whose Length is to be found.

P R A C T I C E.

|                         |     |
|-------------------------|-----|
| Raise the Perpendicular | BC  |
| Equal to the Excess     | BA  |
| Draw the Line           | AC  |
| Prolonged towards       | D.  |
| From the Point          | C   |
| And the Space           | BC  |
| Describe the Arch       | BD. |

AD will be the Side of the Square, of which AB is the Excess of the Diagonal AE above the Length of the said Side AD.

P R O P O S I T I O N X.

To cut a given Right Line in Extreme and mean Proportion.

Let AB be the Line to be so divided, and the Rectangle composed of the whole Line and of one of its Parts shall be equal to the Square formed upon the other Part.

## P R A C T I C E.

|                         |    |
|-------------------------|----|
| Raise the Perpendicular | AD |
| Prolong it towards      | C  |
| Make                    | AC |
| Equal to half of        | AB |
| From the Point          | C  |
| With the Space          | CB |
| Describe the Arch       | BD |
| From the Point          | A  |
| With the Space          | AD |
| Describe the Arch       | DE |
| The Line                | AB |
| Will be divided at      | E  |

According to the Proposition; for if you make the Rectangle AH, composed of the Line AB, and of the Part BE, it will be equal to the Square AF, formed upon the other Part AE.

## P R O P O S I T I O N XI.

To divide a Right Line of a determined Length, according to given Proportions.

Let AB be a Line proposed to be divided according to the Proportions C, D, E, F.

## P R A C T I C E.

|                                 |            |
|---------------------------------|------------|
| From the Point or Extremity     | A          |
| Draw at Discretion the Line     | AG         |
| Make AH                         | AH         |
| Equal to the Line or Proportion | C          |
| Make                            | HI         |
| Equal to the Line               | D          |
| Make                            | IL         |
| Equal to the Line               | E          |
| Make                            | LM         |
| Equal to the Line               | F.         |
| Draw the Line                   | BM         |
| Draw the Lines                  | LN, IO, HP |
| Parallels to the Line           | BM.        |

The Line AB will be divided as required at the Points P, O, N.

PROPOSITION XII.

Upon a Right Line given, to form two Rectangles according to a given Proportion.

AB is the Line upon which two Rectangles are to be formed, which shall in themselves be according to the Proportion of C and D.

PRACTICE.

|                                             |                  |
|---------------------------------------------|------------------|
| Divide the Line                             | AB               |
| At the Point                                | E                |
| According to the Proportion of              | C to D           |
| Make the Square                             | ABHF B. 2. P. 3. |
| Draw the Line                               | EI               |
| Parallel to the Line                        | AF               |
| BEIH, AEIF will be the Rectangles required. |                  |
| For the Rectangle                           | AI               |
| Is to the Rectangle                         | EH               |
| As the Line                                 | D                |
| Is to the Line                              | C.               |



# M E C H A N I C S.

**T**HE following Example of the Nature and Uses of the *Mechanic Powers* will not, perhaps, be thought unnecessary, or, at least, not improper in this Place.

*Mechanics* is a mixed mathematical Science, which considers Motion and moving Powers, their Nature and Laws, with the Effects thereof, in Machines, &c.

That Part of *Mechanics* which considers the Motion of Bodies arising from Gravity is by some called *Statics*.

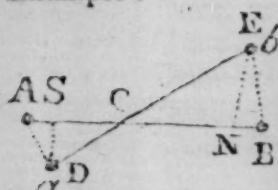
*Mechanical Powers* denote the six simple Machines; to which all others, how complex soever, are reducible, and of the Assemblage whereof they are all compounded.

The *Mechanical Powers* are, the *Balance*, *Lever*, *Wheel*, *Pully*, *Wedge*, and *Screw*.

They may, however, be all reduced to one, viz. the *Lever*.

The Principle whereon they depend is the same in all, and may be conceived from what follows.

The Momentum, Impetus, or Quantity of Motion of any Body, is the Factum of its Velocity (or the Space it moves in a given Time) multiplied into its Mass. Hence it follows, that two unequal Bodies will have equal Moments, if the Lines they describe be in a reciprocal Ratio of their Masses.—Thus, if two Bodies, fastened to the Extremities of a Balance or *Lever*, be in a reciprocal Ratio of their Distances from the Point; when they move, the Lines they describe will be in a reciprocal Ratio of their Masses. For Example:



If the Body A be triple the Body B, and each of them be fixed to the Extremities of a *Lever* AB, whose Fulcrum, or fixed Point is C, as that the Distance of BC be triple the Distance CA; the *Lever* cannot be inclined on either Side, but the Space BE, passed over by the less Body, will be triple the Space AD, passed over by the great one.

So that their Motions or Moments will be equal, and the two Bodies in Equilibrio.

Hence that noble Challenge of *Archimedes, Datis viribus, datum pondus movere*; for as the Distance CB may be increased infinitely, the Power or Moment of A may be increased infinitely.—So that the whole of *Mechanics* is reduced to the following Problem.

*Any Body, as A, with its Velocity C, and also any other Body, as B, being given; to find the Velocity necessary to make the Moment, or Quantity of Motion in B, equal to the Moment of A, the given Body.*—Here, since the Moment of any Body is equal to the Rectangle under the Velocity, and the Quantity of Matter; as BAC are proportional to a fourth Term, which will be  $c$ , the Celerity proper to B, to make its Moment equal to that of A. Wherefore in any Machine or Engine, if the Velocity of the Power be made to the Velocity of the Weight, reciprocally as the Weight is to the Power; such Power will always sustain, or, if the Power be a little increased, move the Weight.

Let, for Instance, AB be a Lever, whose Fulcrum is at C, and let it be moved into the Position  $aCb$ .—Here, the Velocity of any Point in the Lever is as the Distance from the Center. For let the Point A describe the Arch A  $a$ , and the Point B the Arch B  $b$ ; then these Arches will be the Spaces described by the two Motions; but since the Motions are both made in the same Time, the Spaces will be as the Velocities. But it is plain, the Arches A  $a$  and B  $b$  will be to one another as their Radii AC and AB, because the Sectors AC  $a$  and BC  $b$  are similar; wherefore the Velocities of the Points A and B are the Distances from the Center C.

Now, if any Powers be applied to the Ends of the Lever A and B, in order to raise its Arms up and down; their Force will be expounded by the Perpendiculars Sa and bN; which being as the right Sines of the former Arches, bB and aA, will be to one another also as the Radii AC and CB; wherefore the Velocities of the Powers are also as their Distances from the Center. And since the Moment of any Body is as its Weight, or gravitating Force, and its Velocity conjunctly; if different Powers or Weights be applied to the Lever, their Moments will always be as the Weights and the Distances from the Center conjunctly.—Wherefore, if to the Lever there be two Powers or Weights applied reciprocally proportional to their Distances from the Center, their Moments will be equal; and if they act contrarily, as in the Case of a Stilliard, the Lever will remain in an horizontal Position,

Position, or the Balance will be in Equilibrio.—And thus it is easy to conceive how the Weight of one Pound may be made to equilibrate a thousand, &c.

Hence also it is plain, that the Force of the Power is not at all increased by Engines; only the Velocity of the Weight, in either lifting or drawing, is so diminished by the Application of the Instrument, as that the Moment of the Weight is not greater than the Force of the Power.—Thus, for Instance; if any Force can raise a Pound Weight with a given Velocity, it is impossible for any Engine to effect, that the same Power shall raise two Pound Weight with the same Velocity; but by an Engine it may be made to raise two Pound Weight with half the Velocity, or 10,000 times the Weight with  $\frac{1}{10000}$  of the former Velocity.



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# The FIVE ORDERS of ARCHITECTURE

Fig 1  
TUSCAN

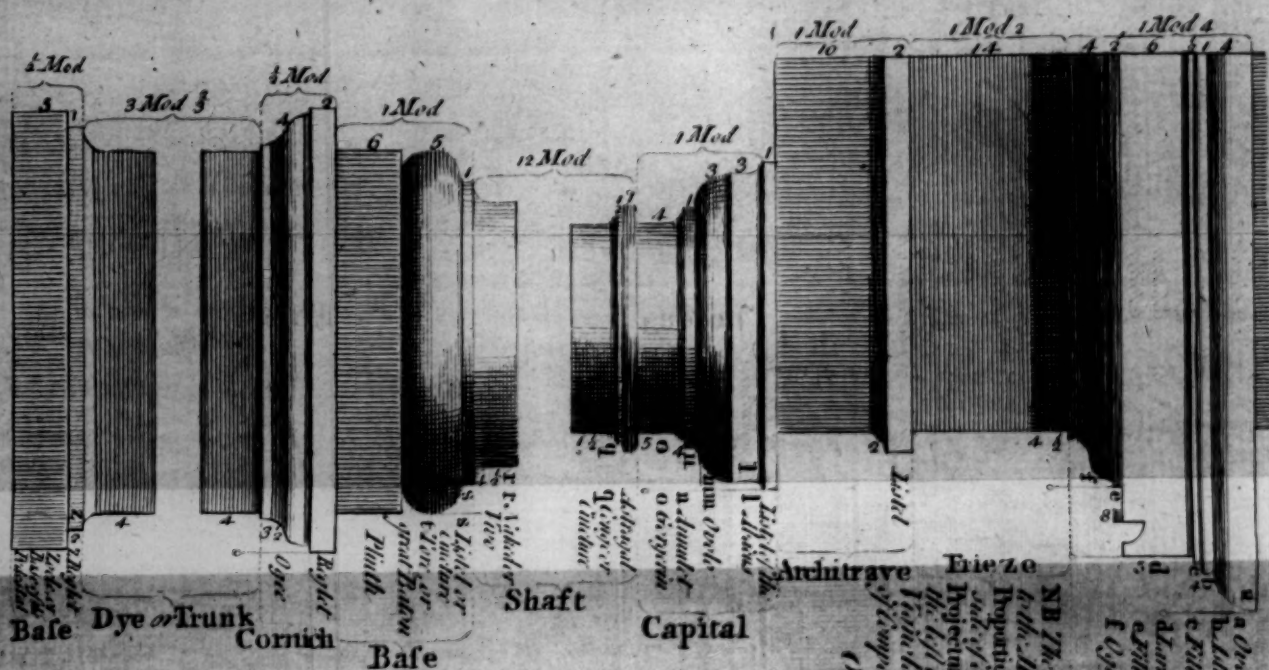


Fig 2  
DORIC

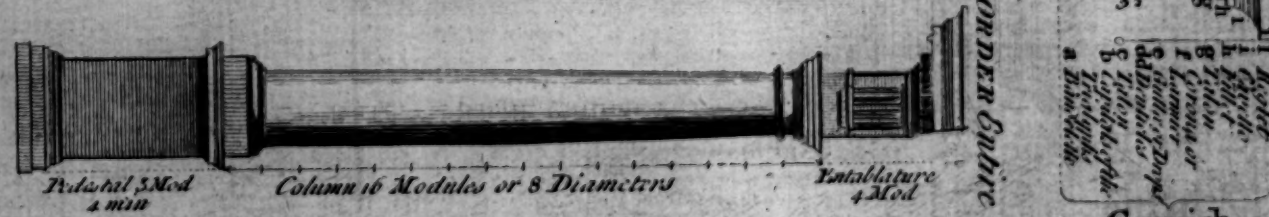
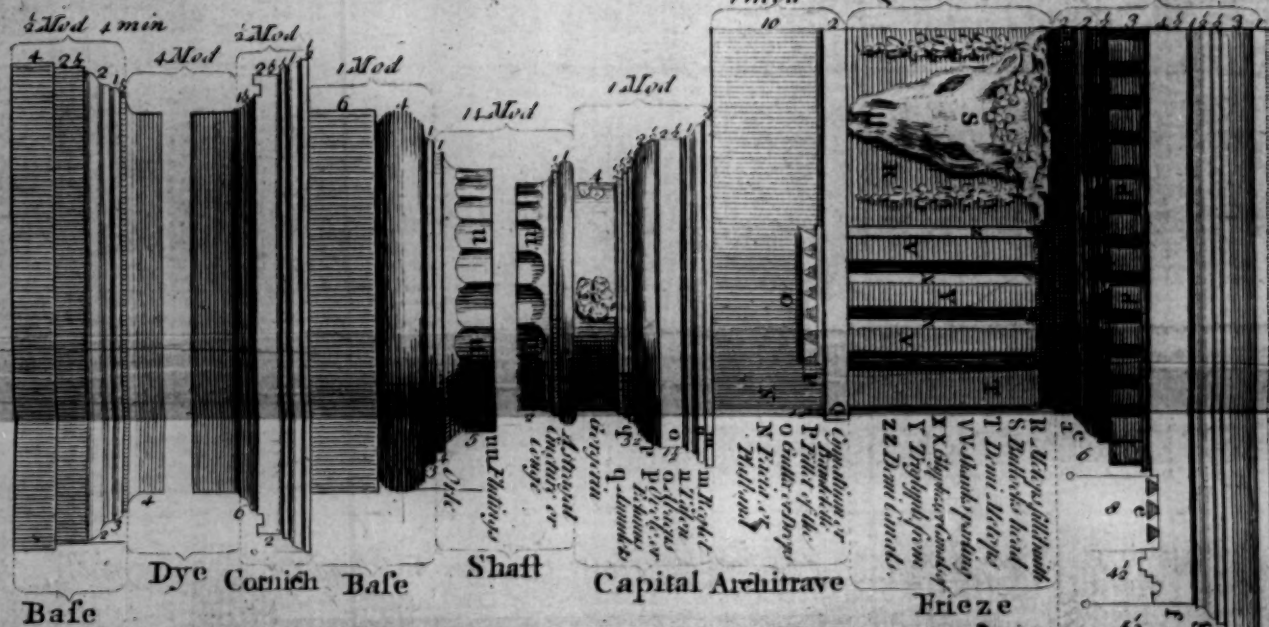
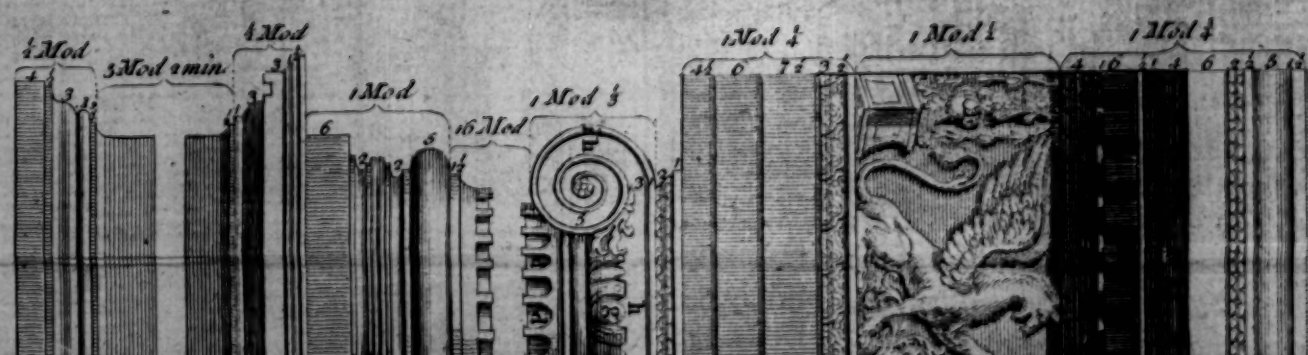
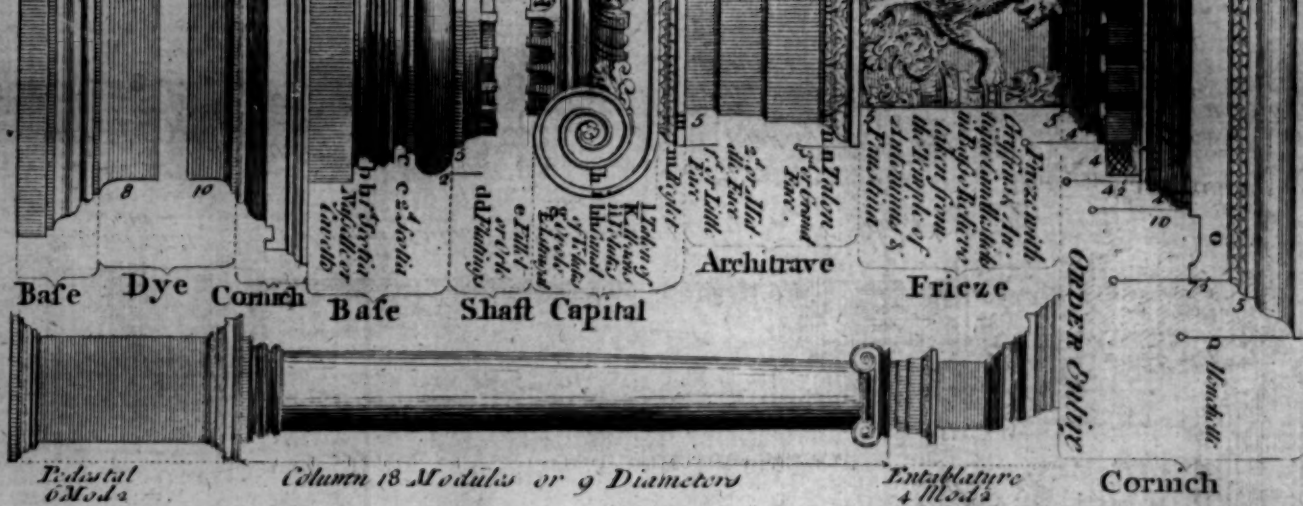


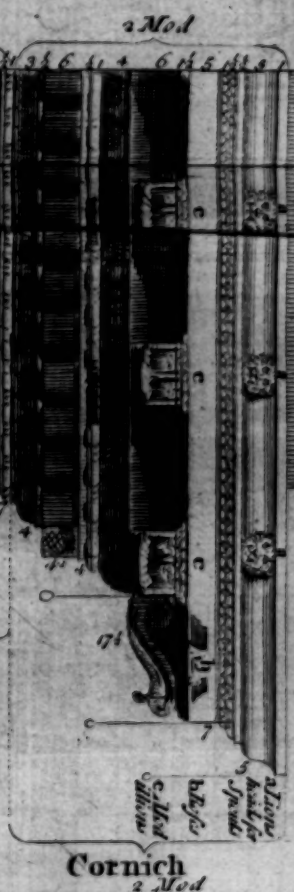
Fig 3  
IONIC



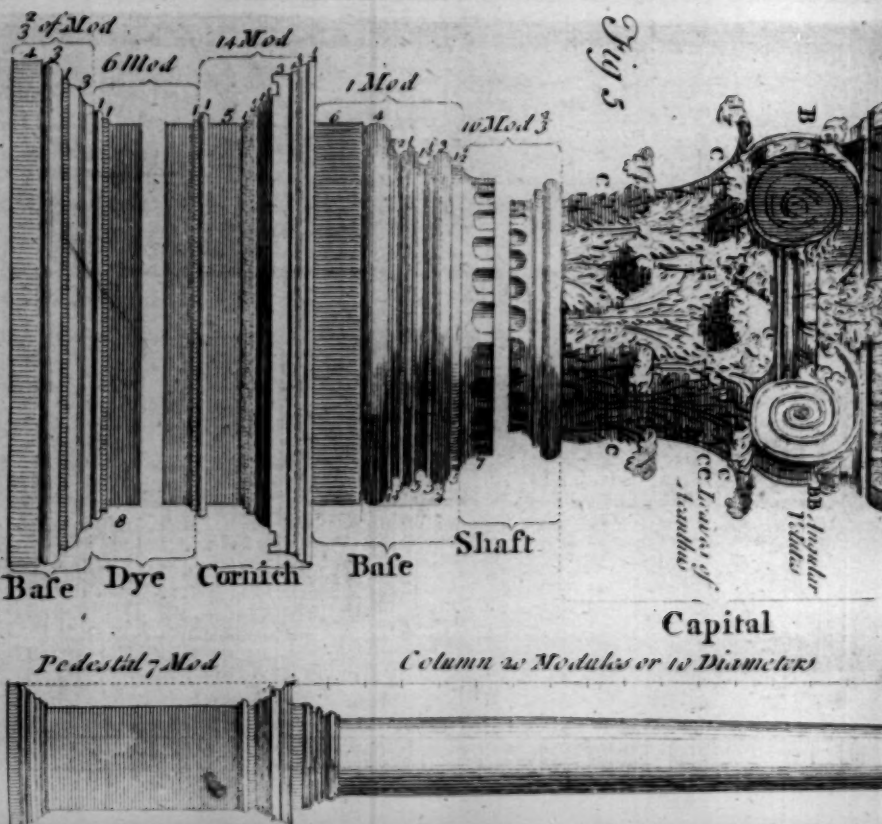
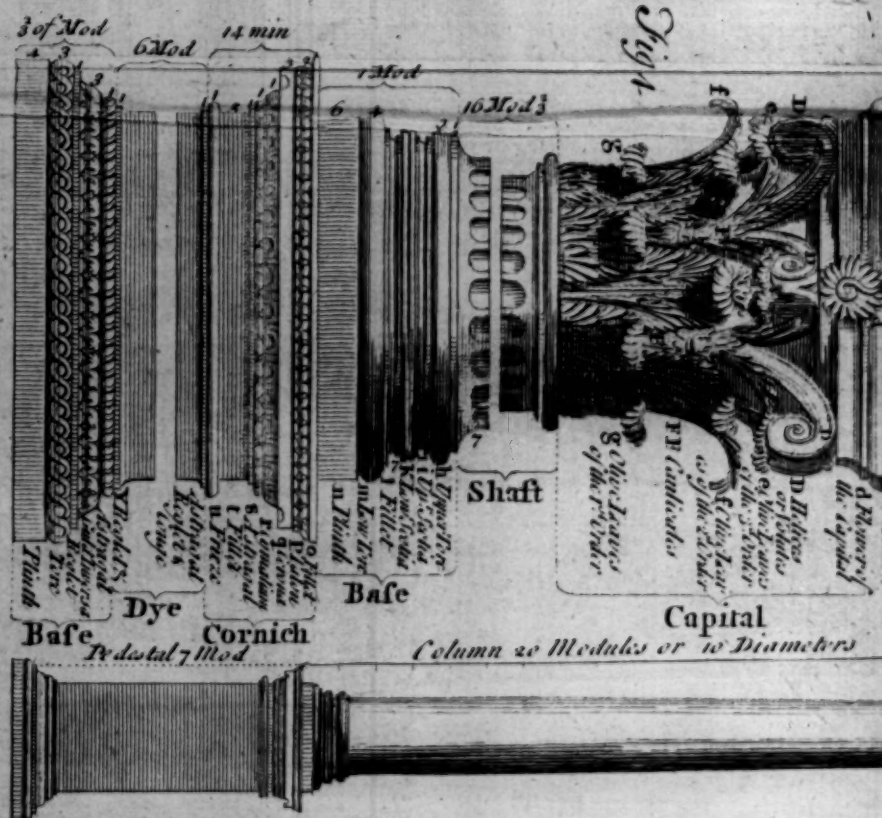
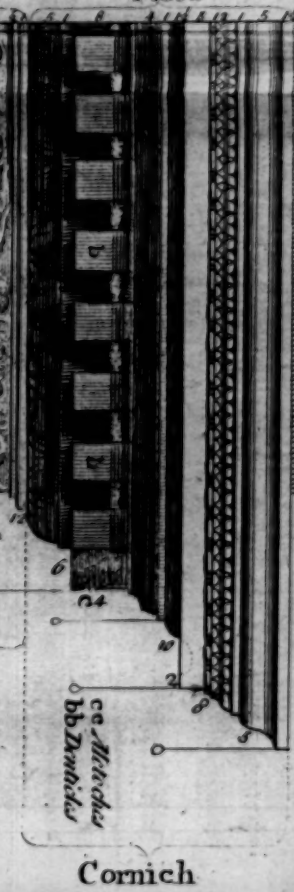


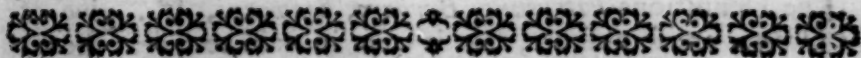


CORINTHIAN



# COMPOSITE





## ARCHITECTURE.

**A**RCHITECTURE may be defined, the Art of Building, or of erecting Edifices, proper either for Habitation or Defence.

*Architecture* is usually divided, with respect to its Objects, into three Branches, *Civil*, *Military*, and *Naval*.

*Civil Architecture* (which is the only Part we shall treat of in this Place), called also absolutely, and by way of Eminence, *Architecture*, is the Art of contriving and executing commodious Buildings for the Uses of civil Life, as Houses, Temples, Theatres, Halls, Bridges, Colleges, Porticoes, &c.

*Architecture* is scarce inferior to any of the Arts in Point of Antiquity.—Nature and Necessity taught the first Inhabitants of the Earth to build themselves Huts, Tents, and Cottages; from which, in course of Time, they gradually advanced to more regular and stately Habitations, with Variety of Ornaments, Proportions, &c.

In the common Account, *Architecture* should be almost wholly of *Grecian* Original: three of the regular Orders or Manners of Buildings are denominated from them, viz. *Corinthian*, *Ionian*, and *Doric*: And scarce a Part, a single Member, or Moulding, but comes to us with a Greek Name.

*Civil Architecture* may be distinguished, with regard to the several Periods or States thereof, into *Antique*, *Ancient*, *Gothic*, *Modern*, &c.

Another Division of *Civil Architecture* arises from the different Proportions which the different Kinds of Buildings rendered necessary, that we might have some proper for every Purpose, according to the Bulk, Strength, Delicacy, Richness, or Simplicity required.

Hence arose five Orders or Manners of Buildings, all invented by the Ancients at different Times, and on different Occasions, viz. *Tuscan*, *Doric*, *Ionian*, *Corinthian*, and *Composite*.

What forms an Order, is the Column with its Base and Capital; surmounted by an Entablature, consisting of Architrave,



trave, Frieze, and Cornice; and sustained by a Pedestal. All which are delineated upon the annexed Plate.

The Definitions *Vitruvius*, *Barbaro*, *Scamozzi*, &c. give of the *Orders*, are so obscure, that it were in vain to repeat them: Without dwelling, therefore, on the Definition of a Word, which Custom has established, it is sufficient to observe, that there are five *Orders* of Columns; three whereof are *Greek*, viz. the *Doric*, *Ionic*, and *Corinthian*; and two *Italic*, viz. the *Tuscan* and *Composite*.

The three *Greek Orders* represent the three different Manners of Buildings, viz. the *solid*, *delicate*, and *middling*; the two *Italic* ones are imperfect Productions thereof. The little Regard the *Romans* had for these last appears hence, that we do not meet with one Instance in the Antique, where they are intermixed. That Abuse the Moderns have introduced by the Mixture of *Greek* and *Latin Orders*, *Daviler* observes, arises from their Want of Reflection on the Use made thereof by the Ancients.

The Origin of *Orders* is almost as ancient as human Society. The Rigour of the Seasons first led Men to make little Cabins, to retire into; at first, half under Ground, and the half above covered with Stubble: At length, growing more expert, they planted Trunks of Trees an-end, laying others across, to sustain the Covering.

Hence they took the Hint of a more regular *Architecture*; for the Trunks of Trees, upright, represent Columns: the Girts, or Bands, which served to keep the Trunks from bursting, expressed Bases and Capitals; and the Summers laid across gave the Hint of Entablatures; as the Coverings ending in Points did of Pediments. This is *Vitruvius's* Hypothesis; which we find very well illustrated by *M. Blondel*.

Others take it, that Columns took their rise from Pyramids, which the Ancients erected over their Tombs; and that the Urns, wherein they inclosed the Ashes of the Dead, represented the Capitals, whose Abacus was a Brick, laid thereon to cover the Urns: but *Vitruvius's* Account appears the more natural.

At length the *Greeks* regulated the Height of their Columns on the Foot of the Proportions of the human Body; the *Doric* represented a Man of a strong, robust Make; the *Ionic* that of a Woman: and the *Corinthian* that of a Girl; Their Bases and Capitals were their Head-dress, their Shoes, &c.

These *Orders* took their Names from the People among whom they were invented: *Scamozzi* uses significative Terms  
to



to express their Character; when he calls the *Tuscan*, the *Gigantic*; the *Doric*, the *Herculean*; the *Ionic*, the *Matronal*; the *Composite*, the *Heroic*; and the *Corinthian*, the *Virginal*.

To give a general Idea of the *Orders*; it must be observed, that the whole of each *Order* is composed of two Parts at the least, viz. the Column and Entablature; and of four Parts at the most, when there is a Pedestal under the Column, and an Acroter, or little Pedestal, a-top of the Entablature: that the Column has three Parts, viz. the *Base*, the *Shaft*, and the *Capital*; the Entablature has three likewise, viz. the *Architrave*, the *Frieze*, and *Cornice*: which Parts are all different in the several *Orders*.

*Tuscan Order* is the first, most simple, and solid: its Column is seven Diameters high; and its Capital, Base, and Entablature have but few Mouldings, or Ornaments. See the Plate, Fig. 1.

*Doric Order* is the Second, and the most agreeable to Nature. It has no Ornament on its Base, or in its Capital. Its Height is eight Diameters. Its Frieze is divided by Tryglyphs and Metopes. See the Plate, Fig. 2.

*Ionic Order* is the third; and a kind of mean Proportional between the solid and delicate Manner. Its Capital is adorned with Volutes, and its Cornice with Denticles. See the Plate, Fig. 3.

*Mich. Angelo*, contrary to all other Authors, gives the *Ionic* a single Row of Leaves at the Bottom of the Capital.

*Corinthian Order*, invented by *Callimachus*, is the fourth, the richest, and most delicate. Its Capital is adorned with two Rows of Leaves, and eight Volutes, which sustain the Abacus. Its Column is ten Diameters high; and its Cornice has Modillions. See the Plate, Fig. 4.

*Composite Order*, the fifth and last (though *Scamozzi* and *Le Clerc* make it the fourth,) is so called, because its Capital is composed out of those of the other *Orders*; having the two Rows of Leaves of the *Corinthian*, and the Volutes of the *Ionic*. It is also called the *Roman*, because invented among that People. Its Column is ten Diameters high; and its Cornice has Denticles, or simple Modillions. See the Plate, Fig. 5.

There are several Arts subservient to *Architecture*, as Carpentry, Masonry, Paving, Joinery, Smithery, Glasiery, Plumbery, Plastering, Gilding, Painting, &c.

In *Building* there are three Things chiefly in View, viz. Conveniency, Firmness, and Delight. To attain these Ends, Sir *Henry Wotton* considers the whole Subject under two Heads, viz. the *Seat* or *Situation*, and the *Work* or *Structure*.

*For the Situation of a Building*, either that the Whole is to be considered, or that of its Parts.—As to the *first*, Regard is to be had to the Quality, Temperature, and Salubrity of the Air; the Conveniency of Water, Fuel, Carriage, &c. and the Agreeableness of the Prospect.

For the *second*, the chief Rooms, Studies, Libraries, &c. are to lie towards the East: Offices that require Heat, as Kitchens, Distillatories, Brew-houses, &c. to the South: those that require a fresh cool Air, as Cellars, Pantries, Granaries, &c. to the North; as also Galleries for Painting, Museums, &c. which require a steady Light.—He adds, that the ancient *Greeks* and *Romans* generally situated the Front of their Houses to the South; but that modern *Italians* vary from this Rule.—Indeed, in this Matter, Regard must be still had to the Country, each being obliged to provide against its respective Inconveniencies; so that a good Parlour in *Egypt* might make a good Cellar in *England*.—The Situation being fixed on, the next Thing to be considered is the

*Work or Structure of the BUILDING*, under which come first the *principal* Parts, then the *Accessaries*, or Ornaments.—To the Principals belong, first, the Materials; then the Form, or Disposition.

*The Materials of a BUILDING* are either Stone, as Marble, Free-stone, Brick for the Walls, &c. or Wood, as Fir, Cypress, Cedar, for Posts and Pillars of upright Use; Oak for Beams, Summers, and for Joining and Connexion.

*For the Form or Disposition of a BUILDING*, it must either be *simple* or *mixed*.—The simple Forms are either *circular* or *angular*: And the circular ones are either *complete*, as just Spheres; or *deficient*, as Ovals.

The circular Form is very commodious, of the greatest Capacity of any; strong, durable beyond the rest, and very beautiful; but then it is found of all others the most chargeable; much Room is lost in the Bending of the Walls, when it comes to be divided; besides an ill Distribution of Light, except from the Center of the Roof: On these Considerations it was, that the Ancients only used the circular Form in Temples and Amphitheatres, which needed no Compartition.—Oval Forms have the same Inconveniencies, without the same Conveniencies; being of less Capacity.

For angular Figures, Sir *Henry Wotton* observes, that *Building* neither loves many, nor few Angles: the Triangle, *v. gr.* is condemned above all others, in wanting Capacity and Firmness; as also, because irresolvable into any other regular

gular Figure in the inward Partitions, besides its own.—For Figures of five, six, seven, or more Angles, they are fitter for Fortifications than civil *Buildings*. There is, indeed, a celebrated *Building* of *Vignola*, at *Capraola*, in Form of a Pentagon; but the Architect had prodigious Difficulties to grapple with, in disposing the Lights, and saving the Vacuities. Such *Buildings*, then, seem rather for Curiosity than Conveniency: and for this Reason, Rectangles are pitched on, as being a Medium between the two Extremes. But again, whether the Rectangle is to be just a Square or an Oblong, is disputed; Sir *Henry Wotton* prefers the latter, provided the Length do not exceed the Breadth by above one third.

Mixed Figures, partly circular and partly angular, may be judged of from the Rules of the simple ones; only they have this particular Defect, that they offend against Uniformity. Indeed, Uniformity and Variety may seem to be opposite to each other: But Sir *H. Wotton* observes, they may be reconciled; and, for an Instance, mentions the Structure of the human Body, where both meet.—Thus much for the first grand Division, viz. the Whole of a *Building*.

*The Parts of a BUILDING*, *Baptista Alberti* comprises under five Heads, viz. the *Foundation*, *Walls*, *Apertures*, *Compartition*, and *Cover*.

For the *Foundation*, to examine its Firmness, *Vitruvius* orders the Ground to be dug up; an apparent Solidity not to be trusted to, unless the whole Mould cut through be found solid: He does not, indeed, limit the Depth of the Digging: *Palladio* limits it to a sixth Part of the Height of the *Building*: This Sir *Henry Wotton* calls the *natural Foundation*, whereon is to stand the Substruction, or Ground-work, to support the Walls, which he calls the *artificial Foundation*: This then is to be the Level; its lowest Ledge, or Row, of Stone only, close laid with Mortar, and the broader the better; at the least twice as broad as the Wall. Lastly, some add, that the Materials below should be laid just as they grow in the Quarry; as supposing them to have the greatest Strength in their natural Posture. *De Lorme* enforces this, by observing, that the breaking or yielding of a Stone in this Part but the Breadth of the Back of a Knife, will make a Cleft of above half a Foot in the Fabric above.—For Pallification, or piling the Ground-plot, so much commended by *Vitruvius*, we say nothing; that being required only in a moist marshy Ground, which should never be chosen: nor perhaps are there any Instances of this Kind, where it was not Necessity that drove them to it.



For the Walls, they are either intire and continued, or intermitted; and the Intermiſſions are either Columns or Pilasters.—Intire or continued Walls are variously diſtinguiſhed; by ſome, according to the Quality of the Materials, as they are either Stone, Brick, &c. Others only conſider the Poſition of the Materials; as when Brick, or ſquare Stones, are laid in their Lengths, with Sides and Heads together, or the Points conjoined, like a Net-work, &c.

The great Laws of Muring are, that the Walls ſtand perpendicular to the Ground-work; the Right Angle being the Cauſe of all Stability: That the maſſieſt and heaviest Materials be loweſt, as fitter to bear than to be borne: That the Work diminith in Thickneſs as it riſes, both for Eaſe of Weight and Expenſe: That certain Courſes, or Ledges, of more Strength than the reſt, be interlaid, like Bones, to ſuſtain the Fabric from total Ruin, if the under Parts chance to decay: And laſtly, that the Angles be firmly bound; theſe being the Nerves of the whole Fabric, and commonly fortified, by the *Italians*, on each Side the Corners, even in Brick *Buildings*, with ſquared Stones; which add both Beauty and Strength.

The Intermiſſions, as before obſerved, are either Columns or Pilasters: whereof there are five Orders, *viz. Tuscan, Doric, Ionic, Corinthian, Composite*; each of which is delineated on the Plate annexed.

Columns and Pilasters are frequently, both for Beauty and Maſteſty, formed arch-wiſe.

For the Apertures, they are either Doors, Windows, Stair-caſes, Chimnies, or Conduits for the Suillage, &c. Only with regard to the laſt, it may be obſerved, that Art ſhould imitate Nature in theſe ignoble Conveyances, and ſeparate them from Sight, where a running Water is wanting, into the moſt remote, loweſt, and thickeſt Part of the Foundation; with ſecret Vents, paſſing up through the Walls, like Tunnels, to the open Air; which the *Italians* all commend for the Diſcharge of noiſom Vapours.

For the Compartition, or Diſtribution of the Ground-plot into Apartments, &c. Sir *H. Watton* lays down theſe Preliminaries; that the Architect never fix his Fancy on a Paper-draught, how exactly ſoever ſet off in Perſpective; much leſs on a mere Plan, without a Model or Type of the whole Structure, and every Part thereof, in Paſteboard or Wood; that this Model be as plain and unadorned as poſſible, to prevent the Eye's being impoſed on; and that the bigger this Model the better.

In the Compartition itself there are two general Views, viz. the *Gracefulness* and *Usefulness* of the Distribution, for Rooms of Office and Entertainment; as far as the Capacity thereof, and the Nature of the Country, will allow.—The *Gracefulness* will consist in a double Analogy or Correspondency; first, between the Parts and the Whole, whereby a large Fabric should have large Partitions, Entrances, Doors, Columns, and, in brief, all the Members large: the second, between the Parts themselves, with regard to Length, Breadth, and Height. The Ancients determined the Length of their Rooms, that were to be Oblongs, by double their Breadth; and the Height by half their Breadth and Length added together. When the Room was to be precisely square, they made the Height half as much more as the Breadth; which Rules the Moderns take occasion to dispense with; sometimes squaring the Breadth, and making the Diagonal thereof the Measure of the Height; and sometimes more. This Deviating from the Rules of the Ancients is ascribed to *M. Angelo*.

The second Consideration in the Compartition, is the *Usefulness*; which consists in the having a sufficient Number of Rooms of all Kinds, with their proper Communications, and without Distraction. Here the chief Difficulty will lie in the Lights and Stair-cases. The Ancients were pretty easy on both those Heads, having generally two cloistered open Courts, one for the Women's Side, the other for the Men: Thus the Reception of Light into the Body of the *Building* was easy; which, among us, must be supplied either by the open Form of the *Building*, or by graceful Refuges or Breaks, by terrassing a Story in Danger of Darkeness, and by Abajours, or Sky-lights.—For casting the Stair-cases, it may be observed, that the *Italians* frequently distribute the Kitchen, Bake-house, Buttery, &c. under Ground, next above the Foundation, and sometimes level with the Floor of the Cellar; raising the first Ascent into the House fifteen Feet or more: which, beside the removing Annoyances out of the Sight, and gaining so much Room above, does, by elevating the Front, add a Majesty to the Whole. Indeed, Sir *H. Wotton* observes, that in *England* the natural Hospitality thereof will not allow the Buttery to be so far out of Sight; besides, that a more luminous Kitchen and a shorter Distance between that and the Dining-room are required, than the Compartition will bear.

In the Distribution of Lodging-rooms, it is a popular and ancient Fault, especially among the *Italians*, to cast the Partitions so, as when the Doors are all open, a Man may see

through the whole House; grounded on the Ambition of shewing a Stranger all the Furniture at once: an intolerable Hardship on all the Chambers except the inmost, where none can arrive but through all the rest, unless the Walls be extreme thick for secret Passages: nor will this serve the Turn, without at least three Doors to each Chamber; a thing inexcusable, except in hot Countries: besides it being a Weakening to the *Building*, and the Necessity it occasions of making as many common great Rooms as there are Stories, which devours a great deal of Room, better employed in Places of Retreat; and must likewise be dark, as running through the Middle of the House.

In the Compartment, the Architect will have Occasion for frequent Shifts; through which his own Segacity, more than any Rules, must conduct him. Thus he will be frequently put to struggle with Scarcity of Ground; sometimes to damn one Room for the Benefit of the rest; as to hide a Buttery under a Stair-case, &c. at other times, to make those the most beautiful which are most in Sight; and to leave the rest, like a Painter, in the Shadow, &c.

For the Covering of the *Building*; this is the last in the Execution, but the first in the Intention: for who would *build*, but to shelter? In the Covering, or Roof, there are two Extremes to be avoided, the making it too heavy or too light: the first will press too much on the Underwork; the latter has a more secret Inconvenience; for the Cover is not only a bare Defence, but a Band or Ligature to the whole *Building*; and there requires a reasonable Weight. Indeed, of the two Extremes, a House Top-heavy is the worst. Care is likewise to be taken, the Pressure be equal on each Side; and *Palladio* wishes, that the whole Burden may not be laid on the outward Walls, but that the inner likewise bear their Share.—The *Italians* are very curious in the Proportion and Gracefulness of the Pent or Slopeness of the Roof; dividing the whole Breadth into nine Parts, whereof two serve for the Height of the highest Top or Ridge from the lowest: but in this Point, Regard must be had to the Quality of the Region; for, as *Palladio* insinuates, those Climates which fear the Falling of much Snow ought to have more inclining Pentices than others.

Thus much for the principal or essential Part of a *Building*.—For the *Accessories*, or *Ornaments*, they are fetched from Painting and Sculpture. The chief Things to be regarded in the *first*, are, that no Room have too much, which will occasion a Surfeit; except in Galleries, or the like: that the  
best



best Pieces be placed where there are the fewest Lights: Rooms with several Windows are Enemies to Painters, nor can any Pictures be seen in Perfection, unless illumined like Nature, with a single Light: that, in the Disposition, Regard be had to the Posture of the Painter in working, which is the most natural for the Posture of the Spectator; and that they be accommodated to the Intentions of the Room they are used in. For Sculpture, it must be observed, that it be not too abundant; especially at the first Approach of a *Building*, or at the Entrance, where a *Doric* Ornament is much preferable to a *Corinthian* one: that the Niches, if they contain Figures of white Stone, be not coloured in their Concavity too black, but rather dusky: the Sight being displeased with too sudden Departures from one Extreme to another: That fine Sculptures have the Advantage of Nearness, and coarser of Distance; and that in placing of Figures aloft, they be reclined a little forwards: because the visual Ray extended to the Head of the Figure is longer than that reaching to its Feet, which will of Necessity make that Part appear further off; so that, to reduce it to an erect Posture, it must be made to stoop a little forwards. M. *Le Clerc*, however, will not allow of this Refupination, but will have every Part in its just Perpendicular.

As to the Stone and Stucco used in *Buildings*, which are fresh and white at first, and are commonly supposed to be discoloured with the Air, Smoke, &c. the true Cause thereof is, that they become covered with a minute Species of Plants, which alter their Colour. A Sort of Lichens, yellowish, brownish, or greenish, which commonly grow on the Barks of Trees, do grow also on Stones, Mortar, Plaister, and even on the Slates of Houses, being propagated by little light Seeds dispersed by the Wind, Rain, &c. The best Preservative known is a Coat of Lime.

To judge of a *Building*, Sir *H. Wotton* lays down the following Rules.—That, before fixing any Judgement, a Person be informed of its Age; since, if apparent Decays be found to exceed the Proportion of Time, it may be concluded, without farther Inquisition, either that the Situation is naught, or the Materials or Workmanship too slight.—If it be found to bear its Years well, let him run back, from the Ornaments and Things which strike the Eye first, to the more essential Members; till he be able to form a Conclusion, that the Work is commodious, firm, and delightful; the three Conditions in a good *Building*, laid down at first, and agreed on by all Authors.—This our Author esteems the most scientific Way of judging.

*Vassari* proposes another; viz. by passing a running Examination over the whole Edifice, compared to the Structure of a well-made Man: as whether the Walls stand upright upon a clean Footing and Foundation; whether the *Building* be of a beautiful Stature; whether, for the Breadth, it appear well furnished; whether the principal Entrance be on the middle Line of the Front, or Face, like our Mouths; the Windows, as our Eyes, set in equal Number and Distance on both Sides; the Offices, like the Veins, usefully distributed, &c.

*Vitruvius* gives a third Method of judging: summing up the whole Art under these six Heads: *Ordination*, or settling the Model and Scale of the Work; *Disposition*, the just Expression of the Design thereof (which two Sir *H. Wotton* thinks he might have spared, as belonging rather to the Artificer than the Censurer); *Eurythmy*, the agreeable Harmony between the Length, Breadth, and Height of the several Rooms, &c. *Symmetry*, or the Agreement between the Parts and the Whole; *Decor*, the due Relation between the *Building* and the Inhabitant; whence *Palladio* concludes, the principal Entrance ought never to be limited by any Rule, but the Dignity and Generosity of the Master. And lastly, *Distribution*, the useful Casting of the several Rooms for Office, Entertainment, or Pleasure.—These last four are ever to be run over, ere a Man may pass any determinate Censure: and these alone, Sir *Henry* observes, are sufficient to condemn or acquit any *Building* whatever.

Dr. *Fuller* gives us two or three good Aphorisms in *Building*; as,—1°. Let not the common Rooms be several, nor the several Rooms common: i. e. the common Rooms not to be private or retired, as the Hall, Galleries, &c. which are to be open; and the Chambers, &c. to be retired.—2°. A House had better be too little for a Day, than too big for a Year. Houses therefore to be proportioned to ordinary Occasions, not extraordinary.—3°. Country-houses must be Substantives, able to stand of themselves: not like City *Buildings*, supported and sheltered on each Side by their Neighbours.—4°. Let not the Front look askint on a Stranger; but accost him right at his Entrance.—5°. Let the Offices keep their due Distance from the Mansion-house; those are too familiar, which are of the same Pile with it.

The Plan or Projection of an Edifice is commonly laid down on three several Draughts.

The first is a Plan which exhibits the Extent, Divisions, and Distribution of the Ground into the various Apartments and other Conveniencies proposed.

The

The second represents the Stories, their Heights, and the external Beauties and Appearances of the whole Building: this is usually termed, by Surveyors, the *Design* or *Elevation*.

The third is commonly distinguished by the Section, and shews the internal Parts of the Fabric.

From these three distinct Plans the Surveyor forms a Computation of the Charge of the whole Erection, and also of the Time wherein the same may be completed.

In regard to civil Architecture, it is certain, that those Nations which have no stately and magnificent Buildings, in general, are always poor and uncivilized. As Land Structures and Edifices of every Kind give Employment to prodigious Numbers of People, whatever has a Tendency to improve in the Art of *Building* should be duly encouraged by those whose Fortunes and Rank will admit of it; and that not only for the Splendor and Magnificence of the State, but from the Promotion of useful Arts, as well as the Benefit of their landed Estates: for this Art gives Birth to the immense Consumption of Timber, Bricks, Stone, and Mortar, Iron-work, &c. all which tend to the private Advantage of the landed Interest; as does likewise the well-furnishing of those sumptuous Edifices when they are erected, which also gives daily Bread to an infinite Number of other Mechanics and Artificers. These mechanic Arts give Strength, Wealth, and Grandeur to a Nation, and gradually train up and support a constant Race of practical Artists and Manufacturers, who thereby become the great Instruments of bringing Treasures into the State, by the Vent of our native Commodities to foreign Nations.

Nor is it politic for the Great and Opulent to contemn Mechanics in general, as too many, perhaps, are wont to do. It is said, that when the great *Heracitus's* Scholars found him in a Mechanic's Shop, into which they were ashamed to enter, he told them, *That the Gods were as conversant in such Places as others*; intimating, that a divine Power and Wisdom might be discerned in such common Arts, although they mistakenly overlooked and despised them.

We know how the late Czar *Peter* esteemed and carested Artificers and Mechanics of every Rank and Degree: and behold the extraordinary Effects of such Policy in that wise Prince! who, by those Measures, has converted a Generation of Savages into Men.

There are some who are too great Encouragers of *Buildings*, they ruining themselves, as well as the Workmen they employ, by gratifying that Itch beyond the Limits of their Fortunes. In consequence of this boundless Profusion, we too frequently see,



before the Expiration of half a Century, very stately and magnificent Seats, which have cost immense Sums, run to Decay for want of being inhabited; or, according to a modern Custom, levelled to the Ground for Sale by piecemeal: thus Structures that have cost some hundred thousand Pounds Sterling have not produced one twentieth Part of the prime Cost to the Executors. So that with the Money sunk in the Erection of those superb Edifices, and the Expence which attends the Support of them with Splendor equal to their Stateliness, some great Families have been reduced to great Indigency. This is a melancholy Consideration to the Proprietor, though this Practice gives Employment to Workmen, to whom it sometimes has proved ruinous, as well as to Families of such who have had an ungovernable Taste for *Building*.

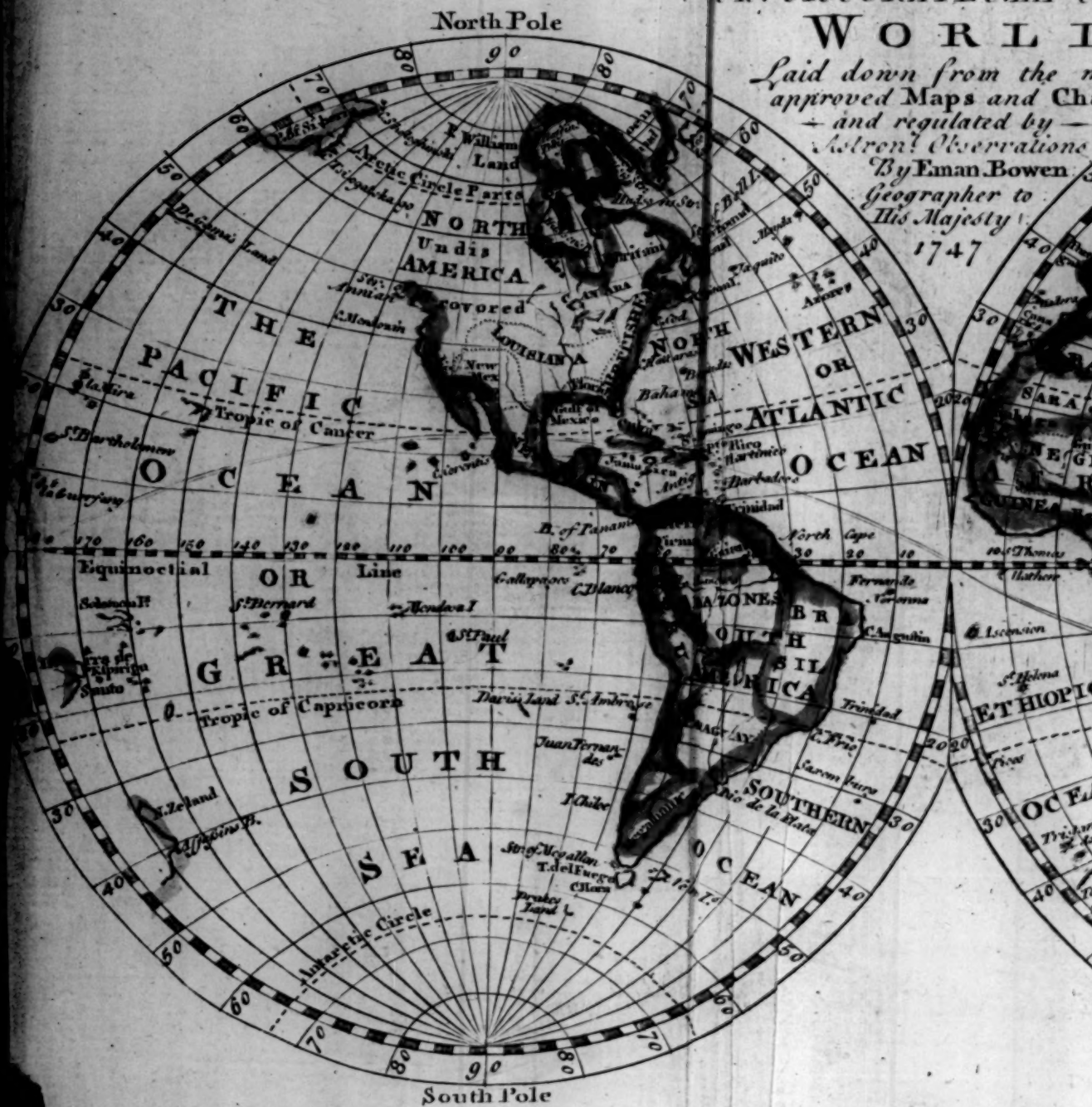
AN ACCURATE MAP OF  
THE  
WORLD

Laid down from the  
approved Maps and Charts  
— and regulated by —  
Astronomical Observations

By Eman Bowen

*Geographer to  
His Majesty.*

1747



to face Page 155. Vol: I .

## North Pole

[illegible]

South Pole





# PART III.

## GEOGRAPHY

A N. D

## ASTRONOMY.

*Maft.* **W**HAT I propofe at prefent [is, to confider the Science of Geography and Aftronomy; but particularly the firft. As to Aftronomy, I fhall content myfelf with juft giving you fome Idea of the *Copernican* Syftem, and leave you to make what farther Progrefs in it yourfelf or your Friends may think proper, as you advance farther in your Studies. But without a competent Knowledge of Geography neither Hiftory can be underftood nor Politics, nor is it poffible to have juft Ideas either of Navigation or Commerce.

Now, the Science of Geography chiefly confifts in a Description of the Surface of the Terreftrial Globe, which is naturally compofed of two Parts, Land and Water, and is therefore called the Terraqueous Globe. Each of thefe Elements are fubdivided into various Parts, and are diftinguifhed by different Names.

*Sch.* How are the feveral Parts of the Earth diftinguifhed?

*M.* The Earth is divided into Continents, Iflands, Peninfulas, Iftmus's, and Promontories or Capes.

A Continent is a large Portion of Land, containing feveral Countries united together, and not feperated by Seas: As *Europe*, *Asia*, and *Africa*, form but one Continent in the Eaft, and *America* another in the Weft.

*Continent.*

An

*Island.* An Island is a Portion of Land surrounded by Water, as *Great Britain* is.

*Peninsula.* A Peninsula is a Portion of the Earth surrounded by Water, except on one Part, where it is joined to some other Land by a narrow Neck or Isthmus. As *Africa* is joined to *Asia* by the Isthmus of *Suez*, and the *Morea* is joined to *Achaia* by the Isthmus of *Corinth*.

*Isthmus.* An Isthmus is that Neck of Land which joins two Countries together, as the Isthmus of *Darien* joins North and South *America*; and the Isthmus of *Corinth*, *Achaia* and the *Morea*.

*Cape or Promontory.* A Promontory or Cape is a Point of Land which extends itself into the Sea, as the Cape of *Good Hope* in *Africa*, and *Cape Comorin* in the *East Indies*.

S. How are the Waters divided?

M. The Waters are divided into Oceans, Seas, Straits, Bays or Gulphs, Lakes, and Rivers.

Oceans are the vast Seas which divide one Part of the Earth from another, as the Atlantic Ocean, which divides *Europe* and *Africa* from *America*; and the Pacific Ocean or *South Sea*, which divides *America* from *Asia*.

*Seas.* Seas are less Bodies of Water which divide one Country from another; as the *Mediterranean*, which divides *Europe* from *Africa*; and the *Baltic*, which divides *Sweden* from *Germany*.

*Bay or Gulph.* A Bay or Gulph is a Sea encompassed with Land, except one Part whereby Ships enter it, as the Gulph of *Mexico* in *America*, and the Gulph of *Finland* in the *Baltic*. And the lesser Bays are frequently called *Creek or Sound*. Creeks or Sounds, as *Plymouth-Sound*.

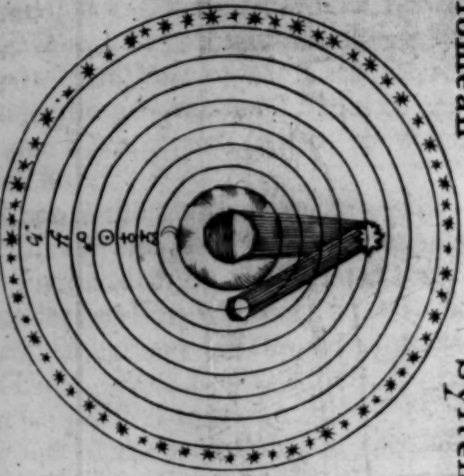
*Strait.* A Strait is a narrow Passage into some Sea, as the Strait of *Gibraltar*; and this is also sometimes called a Sound, as the Strait by which we enter the *Baltic* Sea is.

*Lake.* A Lake is properly a great Water surrounded by Land, which has no visible Communication with any Sea, as the *Caspian* Sea in *Asia*; but many other Waters which have a Communication with the Sea are denominated Lakes also, as the *Onega* Lake in *Russia*, and the Lake of *Nicaragua* in *America*.

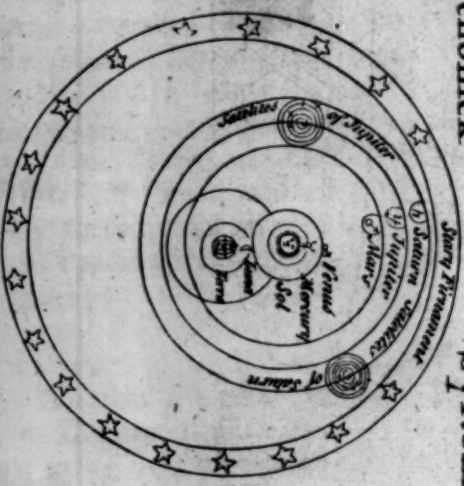
*River.* A River is a Stream issuing from one Fountain, which, after it has run a considerable Course, discharges itself usually in some Sea, as the *Danube*, which, rising in the Mountains of the *Alps*, after it has run a Course of many hundred Miles from West to East, through great Part of



Ptolomean

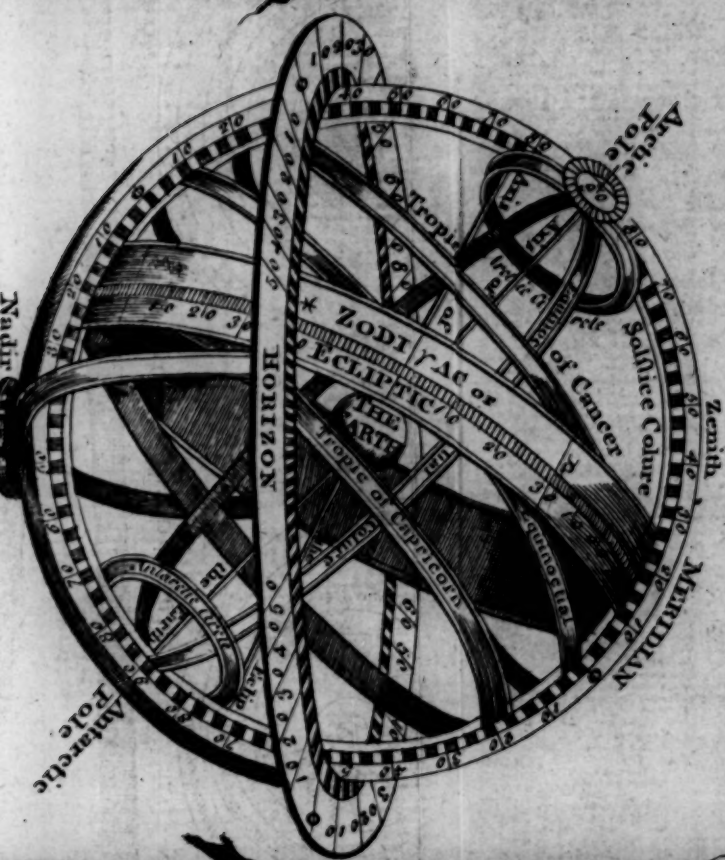


Sysem. Tychonick



Sysem





THE ARTIFICIAL SPHERE

of Germany, Hungary, and Turkey, discharges itself into the Euxine Sea by several Channels.

S. Of what Dimensions is the terrestrial Globe?

M. The Circumference of the terrestrial Globe is 360 Degrees, every Degree being 60 geographical Miles; so that the whole Circuit is 21600 such Miles; and if the Diameter was a third Part of the Circumference, the Diameter would be 7200 Miles; but the Diameter is as 7 to 22, which makes it something less than a third Part of the Circumference. If we reduce the geographical Miles to *English* Miles, the Circumference of the Earth will be about 24,000 Miles, and the Diameter 8000.

*Circumference of the Globe.*

*Diameter.*

S. What is the Earth founded upon?

M. The terrestrial Globe rests upon nothing, but appears equally surrounded by the Heavens on every Side; for the better understanding whereof, it will be necessary to observe the several imaginary Circles described on the artificial Globe, *Plate 2. viz.* 1. The Equator, and the Circles parallel to it. 2. The first Meridian, and the rest of the meridional Lines. 3. The Zodiac, which includes the Ecliptic. 4. The Horizon. 5. The two Tropics. 6. The Artic and Antartic Circles. It is supposed also, that a Line passes through the Center of the Globe, called its Axis, round which it moves every 24 Hours, the Ends of which Axis are called the Poles of the Earth, that in the North called the Artic or North Pole, from a Star in the Heavens opposite to it, which forms Part of the Constellation called the *Little Bear*, and that in the South called the Antartic or South Pole, as diametrically opposite to the other.

*Circles of the Globe.*

S. Of what Use is that Circle denominated the Equator?

M. By the Equator the Globe is divided into two equal Parts or Hemispheres, and on this Circle are marked the Degrees of Longitude, from the first Meridian, either East or West. The Parallel Circles are so called from their running parallel to the Equator, of which there are nine in Number inclusive between the Equator and either Pole, ten Degrees distant from each other, every Degree of Latitude being 60 geographical Miles, and every ten Degrees 600 such Miles. Consequently it is 5400 Miles from the Equator to either Pole, which is one Quarter of the Circumference of the Globe.

*Equator.*

S. Of what Use is the first Meridian?

M. The

*Meridian.*

*M.* The first Meridian is represented by the brazen Circle in which the Globe moves, dividing it into the Eastern and Western Hemispheres, on which Circle are marked the Degrees of Latitude, which are counted Northward from the Equator to the North-Pole, and Southward from the Equator to the South Pole.

Where the meridional Lines are 24 in Number, they are 15 Degrees or one Hour asunder; those who live under the meridian Line on the right Hand, that is, to the Eastward of the first Meridian, have the Sun an Hour before us; and those who live under the meridional Line on the left Hand, that is, West of us, have the Sun an Hour after us; and this shews what is meant by Eastern and Western Longitude.

*Longitude.*

*Latitude.*

And as Longitude is nothing more than the Distance any Place is East or West of the first Meridian, so Latitude is the Distance a Place is from the Equator North or South. If it be North of the Equator, it is called North Latitude; and if it be South of the Equator, it is called South Latitude.

*S.* Where is the first Meridian usually placed?

*M.* The first Meridian in the old Maps was placed either at *Teneriff*, one of the *Canary* Isles, 17 Degrees West of *London*, or at *Ferro*, another of the *Canary* Isles, 19 Degrees West of *London*. But every Nation almost at this Day places the first Meridian at their respective capital Cities in their several Maps. In *Moll's*, which are the correctest *English* Maps we have, *London* is made the first Meridian at one End of the Map, and *Ferro* at the other; *Ferro* being 19 Degrees West of *London*, as has been observed already. And in these Maps the upper End is always the North, the lower End the South; the right Hand East, and the left Hand West; the Degrees of Longitude being marked at the Top and Bottom of each Map, and the Degrees of Latitude on the Sides of the Map.

*S.* What is meant by the Zodiac?

*M.* The Zodiac is that Circle which cuts the Equator obliquely, and is divided into twelve Signs, through which the Sun seems to pass within the Space of 12 Months, each Sign containing 30 Degrees of Longitude.

The Ecliptic is a Line passing through the Middle of the Zodiac, and shews the Sun's, or rather the Earth's Path or Orbit, in which it moves annually.

*S.* Why do you say the Earth's Orbit? Is it not the Sun that moves?

*M.* No,



*M.* No, but Geographers speak according to Appearances; the Appearance is the same if the Earth moves from West to East, as if the Sun moved from East to West.

*S.* Which of the Circles is denominated the Horizon?

*M.* The Horizon is the broad Circle in which the Globe stands, dividing it into the upper and lower Hemispheres. The Place where any one stands, is the Center of this Horizon and Hemisphere; the sensible Horizon seems to touch the Surface of the Earth, and is the utmost Limits of our Sight, upon an extensive Plain. The rational Horizon is supposed parallel to this, and to be extended to the Heavens. *Horizon.*

The Poles of our Horizon are two imaginary Points in the Heavens, called the *Zenith* and *Nadir*; the *Zenith* being the vertical Point directly over our Heads, and the *Nadir* that Point of the Heavens under our Feet, diametrically opposite to the *Zenith*. *Zenith, Nadir.*

*S.* Are any Part of the Heavens under us?

*M.* As the Earth turns round upon its own Axis every 24 Hours, which makes Day and Night, that Part of the Heavens which was over our Heads at 12 at Noon must of course be under our Feet at 12 at Night; but, speaking properly, no Part of the Earth can be said to be uppermost or lowermost. All the Inhabitants of the Earth seem to have the Earth under their Feet, and the Heavens over their Heads, and Ships sail with their Bottoms to each other.

*S.* Of what Use are the Circles denominated Tropics?

*M.* The Tropics shew how far the Sun, or rather the Earth, proceeds North or South of the Equator every Year. The Tropic of *Cancer* surrounds the Globe  $23\frac{1}{2}$  Degrees North of the Equator, and the Tropic of *Capricorn*  $23\frac{1}{2}$  South of the Equator. *Tropics.*

*S.* Where are the polar Circles placed?

*M.* The Polar Circles are drawn  $23\frac{1}{2}$  Degrees distant from each Pole, and  $66\frac{1}{2}$  distant from the Equator. *Polar Circles.*

*S.* What are those Divisions of the Earth called Zones?

*M.* The Earth is divided into five Zones, viz. The torrid Zone, the two frigid Zones, and the two temperate Zones; and are denominated Zones, because they encompass the Earth like a Girdle. *Zones.*

The torrid Zone lies between the two Tropics, and is so denominated from the excessive Heat of the Climate, the Sun passing over it twice every Year. *Torrid Zone.*

The

*Frigid Zones.* The two frigid Zones lie within the polar Circles, and are so called from the excessive Cold within those Circles.

*Temperate Zones.* The Northern temperate Zone lies between the Tropic of *Cancer* and the Arctic Circle; and the Southern temperate Zone, between the Tropic of *Capricorn* and the Antarctic Circle.

S. What are we to understand by the Elevation of the Pole?

*Elevation of the Pole.* M. The Elevation of the Pole is the Height of the Pole above the Horizon, and is always equal to the Latitude of any Place, as the South of *England* lies in 50 Degrees of North Latitude, so the North Pole must of course be elevated 50 Degrees above the Horizon there; for which Reason, the Latitude of a Place and the Elevation of the Pole are used promiscuously to express the same Thing.

S. Please to explain this by some Instances.

M. When you rectify the Globe, and bring any Place to the Zenith, the Horizon must of course be 90 Degrees distant from that Place, either North or South. Suppose then the given Place lie in 50 Degrees of North Latitude; consequently the given Place must be 40 Degrees distant from the North Pole, and the Pole must be 50 Degrees above the Horizon of that Place, to make up the 90 Degrees on that Side. On the other hand, as the given Place lies 50 Degrees North of the Equator, your Horizon must extend to 40 Degrees of Southern Latitude, to make up the Complement of 90 Degrees on that Side. To explain this farther, suppose you bring *Petersburgh* to the Zenith, which lies in 60 Degrees North Latitude, and consequently is within 30 Degrees of the Pole, then there must be 60 Degrees between the Pole and the Horizon to make up the Complement of 90 Degrees. And on the other hand, the Horizon of *Petersburgh* will extend but to 30 Degrees of Southern Latitude; that making up the Complement of 90 Degrees on that Side, for there will always be 90 Degrees between the Zenith and Horizon on every Side to form the Hemisphere.

S. Of what Use is the Hour Circle on the Globe?

*Hour Circle.* M. The brazen horary Circle, fixed on every Globe with an Index, shews how many Hours, and consequently how many Degrees, any Place is East or West of another Place; for as every 15 Degrees East or West is an Hour, so every Hour is 15 Degrees.

The

The Quadrant of Altitude is a pliant Brass Plate divided into 90 Degrees, one fourth of the Circumference of the Globe, by which the Distances of Places may be found, and many useful Problems resolved. *Quadrant of Altitude.*

S. How are the Inhabitants of the Earth distinguished in regard to their respective Situations?

M. They are denominated either Periæci, Antæci, or Antipodes.

The Periæci are situate under the same Parallel, but opposite Meridians: It is Midnight with one when it is Noon with the other, but the Length of their Days and their Seasons are the same; these are found by the turning the horary Index 12 Hours, or turning the Globe half round. *Periæci.*

The Antæci are situate under the same Meridian, but opposite Parallels; these have the Seasons opposite to ours, and the same Length of Days; but when their Days are longest, ours are shortest. These are found by numbering as many Degrees on the opposite Side of the Equator as we are on this. *Antæci.*

The Antipodes lie under opposite Meridians, and opposite Parallels; these have different Seasons, and their Noon-day is our Midnight, and their longest Day our shortest: These are found by turning the horary Index 12 Hours from the given Place, or turning the Globe half round, and then counting as many Degrees on the opposite Side of the Equator as the given Place is on this. *Antipodes.*

S. Are they distinguished by any other Circumstances?

M. The Inhabitants of the Earth are distinguished by their different Shadows at Noon-day, and are denominated either Amphiscii, Ascii, Heteroscii, or Periscii. *Different Shadows.*

The Amphiscii inhabit the Torrid Zone, and have their Noon-day Shadows both North and South: When the Sun is South of them, then their Shadows are North, and when the Sun is North of them, their Shadows are South; these are also called Ascii, because the Sun is vertical twice every Year at Noon-day, and then they have no Shadow. *Amphiscii.*

The Heteroscii, who inhabit the Temperate Zones, have their Shadows always one Way at Noon-day. In the Northern temperate Zone their Shadows are always North; and in the Southern temperate Zone, their Shadows are always South at Noon-day. *Ascii.*



*Periscii.*

The Periscii inhabit within the polar Circles, and have their Shadows every Way, the Sun being above their Horizon all the 24 Hours, several Months in the Year, viz. when it is on the same Side of the Equator they were of; and if there were any Inhabitants at either of the Poles, they would have but one Day of 6 Months, and one Night of the same Length.

S. What are we to understand by *Climates*?

*Climates.*

M. *Climates* are Spaces on the Surface of the Globe, bounded by imaginary Circles parallel to the Equator, so broad that the Length of the Day in one exceeds that of another half an Hour, of which there are 60 in Number, viz. 24 from the Equator to each of the Polar Circles, and 6 from either of the Polar Circles to the respective Poles, between which last, there is a Difference of an intire Month; the Sun appearing in the first one Month above the Horizon without setting, in the second two Months, and so on to the Pole, where there is a Day of 6 Months, and the Nights proportionable, when the Sun is on the opposite Side of the Equator.

S. Are these *Climates* of an equal Breadth?

M. No, those near the Equator are much the broadest: For Example, the first Climate next the Equator is 8 Degrees odd Minutes in Breadth, whereas the 11th Climate is little more than two Degrees broad, as may be observed in the following Table.

| Climates. |                                                    | Latitude.    |          |               |
|-----------|----------------------------------------------------|--------------|----------|---------------|
|           |                                                    | Hours.       | Minutes. | Degrees. Min. |
| 1         | The Beginning of the first Climate at the Equator. | 12           | 00       | 00            |
| 2         | Climate                                            |              |          |               |
| 3         |                                                    | 12           | 30       | 08            |
| 4         |                                                    | 13           | 00       | 16            |
| 5         |                                                    | 13           | 30       | 23            |
| 6         |                                                    | 14           | 00       | 30            |
| 7         |                                                    | 14           | 30       | 36            |
| 8         |                                                    | 15           | 00       | 41            |
| 9         |                                                    | 15           | 30       | 45            |
| 10        |                                                    | 16           | 00       | 49            |
| 11        |                                                    | 16           | 30       | 51            |
| 12        |                                                    | 17           | 00       | 54            |
| 13        |                                                    | 17           | 30       | 56            |
| 14        |                                                    | 18           | 00       | 58            |
| 15        |                                                    | 18           | 30       | 59            |
| 16        |                                                    | 19           | 00       | 61            |
| 17        |                                                    | 19           | 30       | 62            |
| 18        |                                                    | 20           | 00       | 63            |
| 19        |                                                    | 20           | 30       | 64            |
| 20        |                                                    | 21           | 00       | 64            |
| 21        |                                                    | 21           | 30       | 65            |
| 22        |                                                    | 22           | 00       | 65            |
| 23        |                                                    | 22           | 30       | 66            |
| 24        |                                                    | 23           | 00       | 66            |
|           |                                                    | 23           | 30       | 66            |
|           |                                                    | To 24 Hours. | To 66    | 30            |

In the frigid Zone the Days increase by Months.

|                  |       |    |
|------------------|-------|----|
| A Day of 1 Month | in 67 | 30 |
| 2 Months         | in 69 | 30 |
| 3 Months         | in 73 | 20 |
| 4 Months         | in 78 | 20 |
| 5 Months         | in 84 | 00 |
| 6 Months         | in 90 | 00 |

N. B. The End of one Climate is the Beginning of the next. At the first Climate, which begins at the Equator, the Day is just 12 Hours long at the Beginning of the Climate, and 12 Hours 30 Minutes at the End of it, viz. in 8 Degrees 25 Minutes of Latitude, where the second Climate begins.

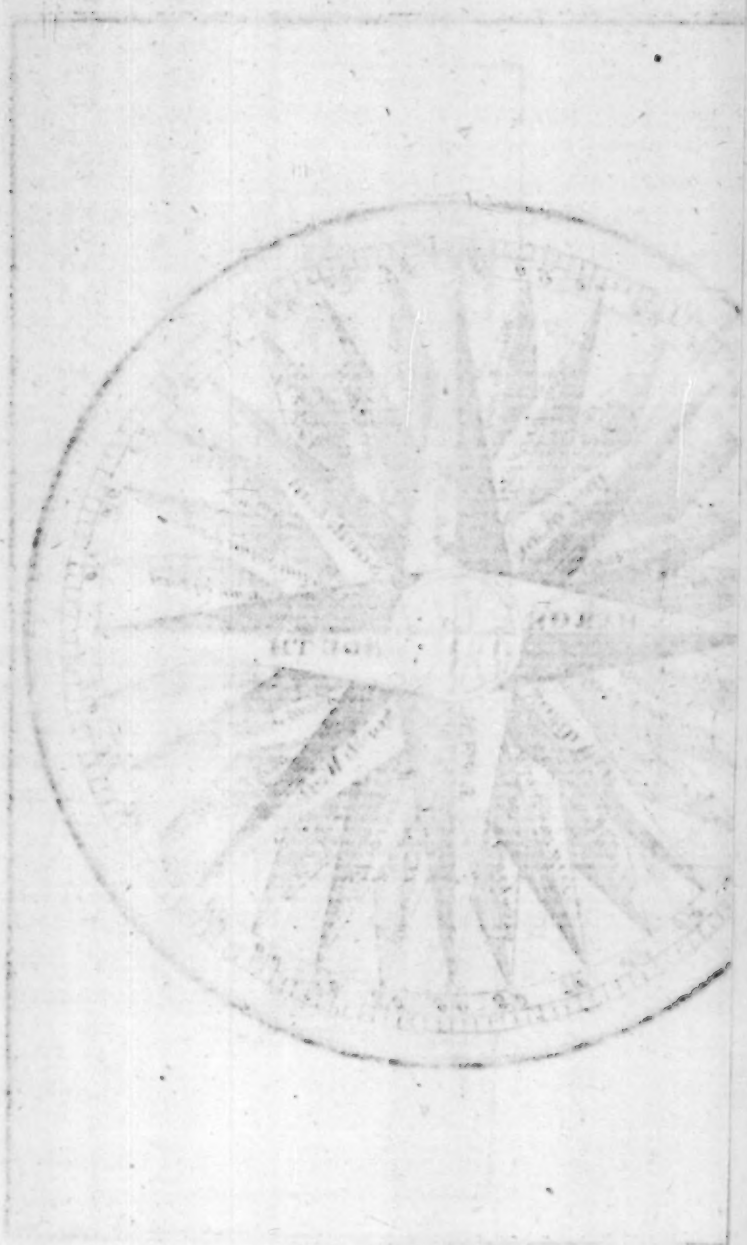
S. I observe that every Degree of Latitude contains 60 Geographical Miles; please to inform me how many such Miles are contained in a Degree of Longitude?

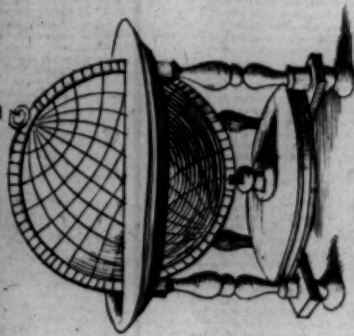
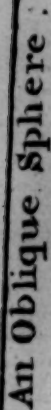
M. Every Degree of Longitude counted on the Equator is 60 Geographical Miles; but as the meridional Lines approach nearer each other as you advance towards either Pole, consequently the Number of Miles between those Lines must lessen in proportion; for Instance, a Degree of Longitude in 52 Degrees of Latitude contains but 37 Miles, though it be full 60 Miles upon the Equator; and this will be found by measuring the Distances as well as by the following Table, which shews how many Miles are contained in a Degree of Longitude in every Latitude.

*A TABLE of the Length of a Degree of Longitude in every Latitude.*

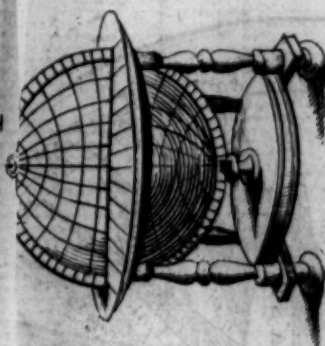
| Deg. Miles. Min. |    |    | Deg. Miles. Min. |          |    |    |    |
|------------------|----|----|------------------|----------|----|----|----|
| Equator.         | 00 | 60 | 00               | Equator. | 26 | 54 | 00 |
| 1                | 59 | 56 | 27               | 53       | 28 |    |    |
| 2                | 59 | 54 | 28               | 53       | 00 |    |    |
| 3                | 59 | 52 | 29               | 52       | 28 |    |    |
| 4                | 59 | 50 | 30               | 51       | 56 |    |    |
| 5                | 59 | 46 | 31               | 51       | 24 |    |    |
| 6                | 59 | 40 | 32               | 50       | 52 |    |    |
| 7                | 59 | 37 | 33               | 50       | 20 |    |    |
| 8                | 59 | 24 | 34               | 49       | 44 |    |    |
| 9                | 59 | 10 | 35               | 49       | 08 |    |    |
| 10               | 59 | 00 | 36               | 48       | 32 |    |    |
| 11               | 58 | 52 | 37               | 47       | 56 |    |    |
| 12               | 58 | 40 | 38               | 47       | 16 |    |    |
| 13               | 58 | 28 | 39               | 46       | 36 |    |    |
| 14               | 58 | 12 | 40               | 46       | 00 |    |    |
| 15               | 58 | 00 | 41               | 45       | 16 |    |    |
| 16               | 57 | 40 | 42               | 44       | 36 |    |    |
| 17               | 57 | 20 | 43               | 43       | 52 |    |    |
| 18               | 57 | 04 | 44               | 43       | 08 |    |    |
| 19               | 56 | 44 | 45               | 42       | 24 |    |    |
| 20               | 56 | 24 | 46               | 41       | 40 |    |    |
| 21               | 56 | 00 | 47               | 41       | 00 |    |    |
| 22               | 55 | 36 | 48               | 40       | 08 |    |    |
| 23               | 55 | 12 | 49               | 39       | 20 |    |    |
| 24               | 54 | 48 | 50               | 38       | 32 |    |    |
| 25               | 54 | 24 | 51               | 37       | 44 |    |    |







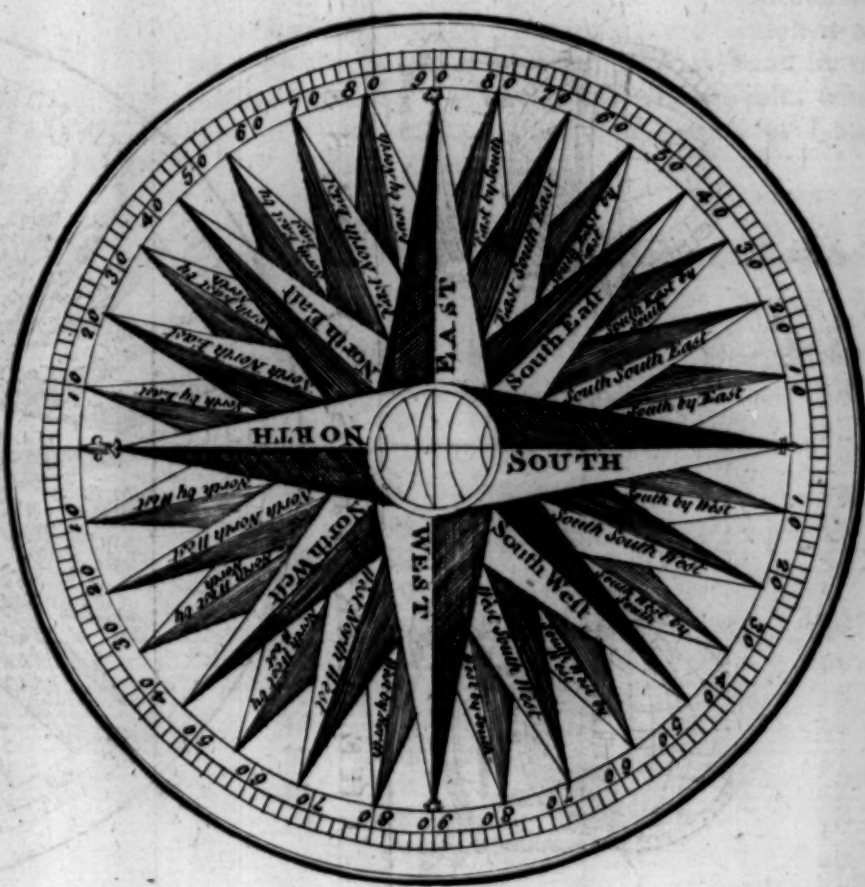
### A Parallel Sphere.



## A Direct Sphere



THE MARINER'S COMPASS





|          | Deg. | Miles. | Min. |          | Deg. | Miles. | Min. |
|----------|------|--------|------|----------|------|--------|------|
| Equator. | 52   | 37     | 00   | Equator. | 72   | 18     | 32   |
|          | 53   | 36     | 09   |          | 73   | 17     | 32   |
|          | 54   | 35     | 26   |          | 74   | 16     | 32   |
|          | 55   | 34     | 24   |          | 75   | 15     | 32   |
|          | 56   | 33     | 32   |          | 76   | 14     | 32   |
|          | 57   | 32     | 40   |          | 77   | 13     | 32   |
|          | 58   | 31     | 48   |          | 78   | 12     | 32   |
|          | 59   | 31     | 00   |          | 79   | 11     | 28   |
|          | 60   | 30     | 00   |          | 80   | 10     | 24   |
|          | 61   | 29     | 04   |          | 81   | 09     | 20   |
|          | 62   | 28     | 08   |          | 82   | 08     | 20   |
|          | 63   | 27     | 12   |          | 83   | 07     | 20   |
|          | 64   | 26     | 16   |          | 84   | 06     | 12   |
|          | 65   | 25     | 20   |          | 85   | 05     | 12   |
|          | 66   | 24     | 24   |          | 86   | 04     | 12   |
|          | 67   | 23     | 28   |          | 87   | 03     | 12   |
|          | 68   | 22     | 32   |          | 88   | 02     | 04   |
|          | 69   | 21     | 32   |          | 89   | 01     | 04   |
|          | 70   | 20     | 32   |          | 90   | 00     | 00   |
|          | 71   | 19     | 32   |          |      |        |      |

S. What is that Position of the Globe, denominated a right Sphere?

M. The Inhabitants of the Earth are sometimes distinguished according to the various Position of their Horizon, as they are situate in a right Sphere, a parallel Sphere, or an oblique Sphere. *Vide Plate 3.*

In a right Sphere the Equator passes through the *Zenith* and *Nadir*, and the parallel Circles fall perpendicularly on the Horizon, which is the Case of those People who live under the Equinoctial Line. *A right Sphere.*

In a parallel Sphere the Poles are in the *Zenith* and *Nadir*; the Equator is parallel to, and coincides with the Horizon, and the parallel Circles are parallel to the Horizon, which can only be said of People under either Pole. *A parallel Sphere.*

In an oblique Sphere the Inhabitants have one of the Poles above and the other under the Horizon, and the Equator and parallel Circles cutting the Horizon obliquely, as is the Case of all People that do not live under the Equinoctial Line. *An oblique Sphere.*

S. How is the Globe to be rectified, in order to find the true Situation of any Place upon it?

*M.* Let the Globe be set upon a level Table, and the brazen Meridian stand due North and South; then bring the given Place to the brazen Meridian, and let there be 90 Degrees between that Place and the Horizon both North and South, and the given Place will be in the *Zenith*; the Globe being thus rectified, you may proceed to solve any Problem.

*S.* How shall I find the Longitude and Latitude of the given Place?

*Longitude and Latitude found by the Globe.* *M.* The Longitude of such a Place will be found by numbering on the Equator so many Degrees as the Place lies East and West of the first Meridian: And the Latitude will be found by

counting so many Degrees on the brazen Meridian as the Place lies North or South of the Equator. You must turn the Globe therefore either East or West, till the given Place is brought to the brazen Meridian, and you will see the Degree of Longitude marked on the Equator; and the Latitude is found at the same time, only by numbering the Degrees on the brazen Meridian either North or South of the Equator, till you come to the given Place.

*S.* How shall I find what Places are under the same Meridian with the given Place?

*Places under the same Meridian.* *M.* This is done only by bringing the given Place to the brazen Meridian, and observing what Places lie under that Meridian either North or South of the Equator.

*S.* How shall I find what Places have the same Latitude?

*Places under the same Parallel.* *M.* This is done only by turning the Globe round, and observing on the brazen Meridian what Places come under the same Degree of Latitude as the given Place is.

*S.* How shall I find the Sun's Place in the Ecliptic at any Time of the Year?

*The Sun's Place in the Ecliptic.* *M.* When you know the Month and Day of the Month, you will find upon the wooden Horizon the Sign in which the Sun is opposite to the Day of the Month, which is the Sun's Place in the Ecliptic at that time.

*S.* How shall I know the Length of the Days at any Time, and at any Place?

*Length of the Day.* *M.* Bring the given Place to the *Zenith*; then bring the Sun's Place in the Ecliptic to the East Side of the Horizon, and set the Index of the Hour Circle to 12 at Noon, or the upper Figure of 12, and turn the Globe till the said Place in the Ecliptic touch the Western

Western Side of the Horizon, and the Number of Hours between the upper Figure of 12, and the Hour the Index points to, shew how many Hours the Day is long, and consequently the Length of the Night; because so many Hours as the Day falls short of 24 must be the Length of the Night; as when the Day is 16 Hours long, the Night must of course be 8 Hours long.

S. How shall I find those Places on the Globe where the Sun is in the Meridian at any time?

M. The Globe being rectified, and the Place where you are brought to the brazen Meridian, set the Index of the horary Circle at the Hour of the Day at that Place; then turn the Globe till the Index points to the upper 12, and you will see all those Places where the Sun is in the Meridian; as for Example, if it be 11 in the Morning at *London*, and you set the Index at 11, turn the Globe till the Index points at the upper 12, and you will find *Naples*, which is an Hour or 15 Degrees East of *London*. And in all Places under the same Meridian as *Naples* is, it must consequently be 12 at Noon at that time.

*To find in what Places the Sun is in the Meridian.*

In like manner, if it be 4 in the Afternoon at *London*, and you set the Index at 4, and turn the Globe till the Index points at the upper 12, you will find *Barbadoes*, which is four Hours or 60 Degrees West of *London*; and at all Places under the same Meridian as *Barbadoes* is, it must consequently be 12 at Noon at that time.

S. How shall I discover where the Sun is vertical at any Time of the Year?

M. The Sun can only be vertical in such Places as lie between the Tropics; and to know this, you are only to find what Place the Sun is in the Ecliptic, and bringing that Place to the brazen Meridian, observe what Degree of Latitude it has; for in all Places in that Latitude the Sun will be vertical that Day, and you will find all those Places only by turning the Globe round, and observing them as they come to the brazen Meridian.

*To find where the Sun is vertical.*

S. How may I find where the Sun is above the Horizon, or shines without setting all the 24 Hours in the Northern Hemisphere?

M. The Day given must be when the Sun is in the Northern Signs, and, having found the Sun's Place in the Ecliptic, you must bring that Place to the brazen Meridian; then count the same Number of Degrees from the North Pole towards the Equator,

*To find where the Days are 24 Hours long.*



tor, as there is between the Equator and the Sun's Place in the Ecliptic; then turn the Globe round; and in all the Places passing under the last Degree counted from the North Pole, the Sun begins to shine constantly without setting on the given Day: And the Rule will serve *vite versa* for any Place set in the Southern Hemisphere; when the Sun is in the Northern Signs.

S. How do we discover the Length of the longest and shortest Days and Nights at any Place in the Northern Hemisphere?

To find the Length of the longest Day in any Place.

M. Rectify the Globe according to the Latitude of the given Place, or, which is the same thing, bring the given Place to the Zenith; then bring the first Degree of *Cancer* to the East Side of the Horizon, and setting the Index of the Hour Circle to the upper Figure of 12, turn the Globe till the Sign of *Cancer* touch the West Side of the Horizon, and observe the Number of Hours between the upper Figure of 12 and the Hour the Index points to, and that is the Length of the longest Day, and the shortest Night consequently consists of so many Hours as the Day falls short of 24; and as for the Length of the Days and Nights in the Southern Latitude, they are just the Reverse of those in Northern Latitude, and the Table of the Climates shews both the one and the other.

S. How may I find in what Place the Sun is rising or setting, or in its Meridian: Or what Parts of the Earth are enlightened at any particular Time?

To find where the Sun is rising, setting, or in the Meridian.

M. First find where the Sun is vertical at the given Hour, and bring that Place to the Zenith, under the brazen Meridian; then observe what Places are in the Eastern Semicircle of the Horizon, for there the Sun is setting, and in those Places in the Western Semicircle of the Horizon the Sun is rising, and in all Places under the brazen Meridian it is Noon Day: All those Places in the upper Hemisphere of the Globe are enlightened, and those in the lower Hemisphere are in Darkness.

S. How shall I find the Distance of one Place from another upon the Globe?

M. If both Places lie under the same Meridian, bring them to the brazen Meridian, and count thereon how many Degrees of Latitude the two Places are from each other, which being reduced to Units is the true Distance: Every Degree of Latitude containing 60 Geographical Miles, as has been observed already; and 60 Geographical Miles make near 70 English

*English Miles.* If the two Places lie under the same Parallel of Latitude, then observe on the Equator how many Degrees of Longitude they are asunder, and observe in the Table A how many Miles a Degree of Longitude makes in that Latitude; and then numbering the Degrees of Longitude on the Equator, reduce them to Miles, and that will give the Distance of the two Places. For Instance, suppose *Rotterdam* lies in 52 Degrees of North Latitude, and 4 Degrees of Eastern Longitude, and *Pyrmont* lies under the same Parallel 5 Degrees East of *Rotterdam*, and I find that every Degree of Longitude in this Latitude makes 37 Miles, then I multiply 37 by 5, which makes 185, being the Number of Miles between *Rotterdam* and *Pyrmont*.

Where the two Places differ both in Longitude and Latitude, the Distance may be found by measuring the Number of Degrees they are asunder by the Quadrant of Altitude, and reducing those Degrees to Miles. For Example, if I find the two Places are the Length of 10 Degrees asunder by the Quadrant, they must necessarily be 600 Miles distant from each other; because 60 Miles, which is the Extent of 1 Degree of Latitude, multiplied by 10, makes 600 Miles on the Globe, in whatever Direction one Place lies from another, as the North, East, South, West, &c.

S. How may I find how one Place bears of another, that is, whether it lies North-East, South-West, or on any other Point of the Compass from another Place?

M. Bring one of the Places to the Zenith, and fix the Quadrant of Altitude there; then extend it to the other Place whose Bearing you would know, and the lower Part of the Quadrant will intersect the wooden Horizon at the Point of the Compass inscribed on the wooden Horizon, which is the true Bearing of the given Place.

*To find how one Place bears of another.*

S. How shall I find on what Point of the Compass the Sun rises or sets at any Place.

M. Bring the given Place to the Zenith, and having found the Sun's Place in the Ecliptic, bring the same to the Eastern Side of the Horizon, and it will shew on what Point of the Compass the Sun rises. On the other hand, if you bring the Sun's Place in the Ecliptic to the West Side of the Horizon, it will shew on what Point of the Compass the Sun sets.

*To find on what Point of the Compass the Sun rises.*

*Of the grand Divisions and Subdivisions of the Earth.*

S. Please to describe the Situation of the several Nations on the Face of the Earth.

*2 Continents.* M. The Earth is usually divided into the Eastern and Western Continents, or into the old and new World. That on the Right-hand in a Map of the World is stiled the Eastern Continent, and that on the left the Western Continent.

S. What does the Eastern Continent contain?

*Eastern Continent.* M. The Eastern Continent comprehends *Europe, Asia, and Africa*: *Europe* is the North-West Division, *Asia* the North-East Division, and *Africa* the South Division of this Eastern Continent.

## E U R O P E.

*Europe's Situation.* M. **E**UROPE is situated between 36 and 72 Degrees of North Latitude, and between 10 Degrees of West, and 65 Degrees of Eastern Longitude, bounded by the Frozen Ocean on the North, by *Asia* on the East (from which it is separated by the *Archipelago*, the *Hellespont* or Strait of the *Dardanells*, the *Propontis* or Sea of *Marmora*, the *Bosphorus* or Strait of *Constantinople*, the *Euxine* Sea, the *Palus Mæotis*, the River *Don* or *Tanais*, and a Line drawn from that River to the Rivers *Irtis* and *Oby*, which, being united, run into the Frozen Ocean.) The *Mediterranean* Sea divides *Europe* from *Africa* on the South, and the *Atlantic* Ocean divides it from *America* on the West. The the greatest Length of *Europe*, viz. from *Cape St. Vincent* in the West to the Mouth of the River *Oby* in the North-East, being about three thousand Miles; and the Breadth from North to South, viz. from the North Cape in *Norway* to *Cape Cagha*, or *Matapar*, in the *Morea*, the most Southern Promontory in *Europe*, being about 2500 Miles.

S. What Countries are comprehended in *Europe*?

*Division of Europe.* M. *Europe* is usually thrown into three grand Divisions, viz. the North, the Middle, and the Southern Division.

I. The Northern Division comprehends, 1. *Russia*, or *Moscowy*; 2. *Sweden*; 3. *Denmark* and *Norway*; and, 4. the Islands of *Britain*, *Iceland*, *Greenland*, and the Islands of the *Baltic*.

The







The Middle Division comprehends, 1. *Poland*; 2. *Germany*, and the *Austrian* Dominions contiguous thereto; 3. The *Netherlands*; and, 4. *France*, and its new Conquests on the *Rhine*.

The South Division contains *Turky* in *Europe*, (the antient *Greece*) *Romania*, *Servia*, *Bulgaria*, *Bosnia*, and *Dalmatia*, with the tributary Provinces of *Walachia* and *Moldavia*, *Crim*, *Little Tartary*, *Budziac Tartary*, and *Bessarabia*; 2. *Switzerland*, with the *Grisons* and the rest of their Allies; 3. *Italy*; 4. *Spain* and *Portugal*; and, 5. The Islands of the *Mediterranean*, viz. those of the *Archipelago*, *Sicily*, *Sardinia*, *Corfica*, *Majorca*, and *Ivica*.

S. How is *Russia* or *Muscovy* situated?

M. *Russia* in *Europe* lies between 46 and 72 Degrees of North Latitude, and between 21 and 65 Degrees of Eastern Longitude, bounded by the Frozen Ocean on the North, by *Moscovy* in *Asia* on the East, by the *Palus Mæotis* and *Little Tartary* on the South, and by *Poland*, the *Baltic Sea*, *Finland*, and *Swedish* and *Norwegian Lapland*, on the West. The three chief Towns, *Petersburgh*, *Mosco*, and *Riga*.

S. What is the Situation of these great Towns?

M. *Petersburgh*, the present Capital, is situate in 60 Degrees of North Latitude, and 31 Degrees of Eastern Longitude, on the River *Nieva*, in the Provinces of *Carelia* and *Ingria*, 400 Miles East of *Stockholm*.

S. How is the City of *Mosco* situate?

M. *Mosco*, till lately the Capital of this Empire, is situate on the River *Moscoway*, in the Province of *Mosco*, in 55 Degrees 45 Minutes North Latitude, and 38 Degrees of Eastern Longitude, 360 Miles East of *Petersburgh*.

S. Where is *Riga* situate?

M. *Riga* is situate in the Province of *Livonia*, at the Mouth of the River *Dwina*, on the *Baltic Sea*, in 57 Degrees of Northern Latitude, and 24 Degrees of Eastern Longitude, 260 Miles South-West of *Petersburgh*, and is the most considerable Port Town in the *Russian* Empire.

S. What are the principal Rivers of *European Russia*?

M. The *Volga*, the *Don*, the *Borysthenes*, and the two *Dwina's*.

S. What is the Constitution of the *Russian* Empire?

M. It is an absolute Monarchy, and the Crown hereditary; but different Branches of the royal Family have of late been advanced



advanced to the Crown, and the Military Men seem to dispose of it as they see fit.

S. What is the Situation of Sweden?

*Sweden.* M. Sweden is situate between 55 and 79 Degrees of North Latitude, and between 10 and 30 Degrees of Longitude, bounded by *Norwegian* and *Russian Lapland* on the North, by *Russia* and the *Baltic Sea* which separates it from *Germany* on the South, and by *Denmark* and *Norway* on the West, from which it is separated by the Strait called the Sound, and the *Defrine Mountains*.

S. What are the chief Towns in Sweden?

*Stockholm.* M. *Stockholm* and *Gottenburg*: *Stockholm* is situate on the *Meller Lake* in the Province of *Upsal*, in 59 Degrees 30 Minutes North Latitude, and 18 Degrees of Eastern Longitude, 260 Miles North East of *Gottenburg*. *Copenhagen.* *Gottenburg* is situate on the Entrance of the *Baltic Sea* in the Province of *West Gothland* in 58 Degrees of North Latitude, and 12 Degrees of Eastern Longitude, 150 Miles North of *Copenhagen*, and 200 Miles South-West of *Stockholm*, and the principal Port Town in *Sweden*. This is a mixed Monarchy, and the King has very little Power.

S. Where is *Denmark* situate?

*Denmark.* M. *Denmark* is situate between 54 and 58 Degrees of North Latitude, and between 8 and 13 Degrees of Eastern Longitude; being bounded by the *Categate Sea*, which divides it from *Norway* on the North; by the same Sea and the *Sound* which separates it from *Sweden* on the East, by *Germany* on the South, and the *German Sea* on the West.

This is an absolute Monarchy, and the Crown hereditary.

*Copenhagen.* The capital City of *Denmark* is *Copenhagen*, situate on the East Side of the Island of *Zealand*, on a Bay of the *Baltic Sea* near the Strait called the Sound, Latitude 55 Deg. 30 Min. East Longitude 13 Degrees.

*Norway.* *Norway* is situate between 58 and 72 Degrees of North Latitude, and between 4 and 30 Degrees of Eastern Longitude, bounded by the Frozen Ocean on the North. By the *Defrine Mountains*, which divide it from *Sweden*, on the East, by the *Categate Sea* on the South, and the *German* on the West. The chief Town is *Bergen*.

*Bergen.* situate in 60 Degrees of North Latitude, and 6 Degrees of Eastern Longitude, on a Bay of the *German Ocean*, being the best Bay in the Country.

This

This Kingdom is now a Province of *Denmark*.

S. What do you call the *British* Islands?

M. The Islands of *Great Britain* and *Ireland*, *British Islands*, the *Orcades*, *Hebrides*, the *Isle of Man*, and the rest of the Islands subject to *Great-Britain*: These, including *Shetland*, are situated in the *Atlantic Ocean*, between 50 and 62 Degrees of North Latitude, and between ten Degrees West and 3 Degrees of Eastern Longitude, bounded by the Northern or *Caledonian Ocean* on the North, by the *German Sea*, which separates them from *Denmark*, *Germany*, and the *Netherlands* on the East, by the *English Channel* and the *Atlantic Ocean* on the South, and by another Part of the *Atlantic Ocean* on the West.

S. How is *England* situated?

M. *England*, the South Division of *Great-Britain*, is situate between 50 and 56 Degrees of North Latitude, and between 6 Degrees West and 2 Degrees East Longitude, bounded by *Scotland* on the North, the *German Sea* on the East, the *English Channel* on the South, and the *Irish* or *St. George's Channel* on the West, about 400 Miles long from North to South, and 300 broad from East to West. The Capital, *London*, where we place the first Meridian, situate on the River *Thames*, in the County of *Middlesex*; the Latitude whereof is 51 Degrees 30 Minutes, being 200 Miles North-West of *Paris*, 180 West of *Amsterdam*, 600 North-West of *Vienna*, and 800 North-East of *Madrid*. The chief Rivers are the *Thames*, the *Severn*, the *Trent* or *Humber*, and the *Medway*. *England* is a limited Monarchy, and the Crown hereditary.

S. What is the Situation of *Scotland*?

M. *Scotland*, the North Division of *Great-Britain*, is situate between 52 and 60 Degrees of Latitude, bounded by the *Caledonian Ocean* on the North, the *German Sea* on the East, *England* and *Solway Firth* on the South, and the *Irish Sea* on the West, being about 350 Miles long from North to South, and from 60 to 120 Miles in Breadth from East to West. The capital City *Edinburgh*, in the Shire of *Lothian*, two Miles South distant of the *Firth of Forth*, and 300 Miles North-West of *London*. The chief Rivers are the *Tay*, the *Clyde*, the *Spey*, the *Dee* and the *Don*. *Scotland* is united to *England*, and subject to the same Sovereign.

S. What is the Situation and Extent of *Ireland*?

M. *Ire-*

*Ireland* *M. Ireland* is situate between 51 and 55 Degrees 15 Minutes North Latitude, and between 6 and 11 Degrees of Western Longitude, bounded by the Northern Ocean on the North, by *St. George's Channel* which separates it from *Great-Britain* on the East, and by the *Atlantic Ocean* on the South and West, being about 250 Miles long from North to South, and generally 150 Miles broad from East to West. The capital City *Dublin*, situate in the Province of *Leinster*, and County of *Dublin*, at the Mouth of the River *Liffy* near

*St. George's Channel*, 60 Miles West of *Holyhead* in *Wales*, and 270 Miles North-West of *London*. The chief Rivers are, the *Shannon*, *Boyne*, *Liffy*, *Lee*, *Blackwater*, and *Barrow*. *Ireland* is a Province of *England*, and many of the *English* Laws introduced there; but they have a distinct Parliament, and some Laws peculiar to that Kingdom; however, no Law can be enacted till approved by the Privy Council of *Great-Britain*, and the Subject may appeal from the Courts of *Ireland* to those in *Great-Britain*. An Act of Parliament of *Great-Britain* will bind *Ireland* where that Kingdom is expressly named.

S. Where is *Iceland* situate?

*Iceland* *M. Iceland* is an Island situate in the *Atlantic Ocean*, between 64 and 67 Degrees of North Latitude, 500 Miles off the Coast of *Norway*, and almost as many North of *Scotland*, being about 300 Miles in Length, and 150 in Breadth. The capital Town *Besfede*, in the South-West Part of the Island, subject to *Denmark*.

S. What is the Situation and Extent of *Greenland*?

*West-Greenland* *M. West-Greenland* extends from the first Meridian to 50 Degrees of West Longitude, and from 60 to upwards of 80 Degrees of North-Latitude, and is a cold barren Country with few Inhabitants, but subject to the *Danes*, who have some Colonies here, and claim the sole Right of fishing on the Coast, which the *Dutch* dispute with them.

*East-Greenland* *East-Greenland* or *Spitsbergen* lies between 10 and 30 Degrees of Eastern Longitude, and between 77 and 82 Degrees of North-Latitude; so cold and barren a Country that there are no Inhabitants, and few Animals or Vegetables; the very Fish and Fowl forsake the Coast in Winter. There is a Night of four Months and upwards, and the Seas as well as other Waters are frozen up in Winter. But here is the best Whale-Fishery in the World,



World, whither the *Dutch* resort about *Midsummer*, and kill Whales sufficient to supply all *Europe* with Whale-bone. The *English* began this Fishery, but were beaten out of it by the *Dutch*, and scarce send three Ships in a Year thither at this Day. This Country is supposed to be contiguous to *West-Greenland* by some, and to extend as far as the North Pole, though it is generally taken to be an Island.

S. What are the chief Islands in the *Baltic Sea*?

M. *Zealand*, *Funen*, and *Lapland*, which belong to *Denmark*, and are situate at the Entrance of the *Baltic Sea*. *Zealand, &c.*

The Islands of *Aland*, *Gothland*, *Oeland*, *Bornholm*, and *Rugen*, which belong to *Sweden*. *Aland, &c.*

And the Islands of *Dagoe* and *Osel*, on the Coast of *Livonia*, which are subject to *Russia*. *Dagoe, &c.*

We come next to treat of the middle Division of *Europe*, viz. *Poland*, *Germany*, the *Austrian* Dominions in and contiguous to *Germany*, the *Netherlands*, *France*, and the late Conquests in *Germany*.

S. What is the Situation and Extent of *Poland*?

M. *Poland* is situate between 46 Degrees 30 Minutes and 57 Degrees 30 Minutes North Latitude, and between 16 and 34 Degrees of East Longitude, being bounded by the *Baltic Sea*, *Livonia*, and *Novogra*, on the North; by *Smolensko*, *Zeringoff*, and the *Russian* *Ukrain*, on the East; by *Bessarabia*, *Moldavia*, *Transylvania*, and *Hungary*, from which it is separated by the *Carpathian* Mountains on the South, and by *Silesia* and *Brandenburg* on the West; being 660 Miles in Length from North to South, and 560 in Breadth from East to West. The chief Towns are *Warsaw*, *Cracow*, and *Dantzick*. *Poland.*

S. What is the Situation of those great Towns?

M. *Warsaw*, the Capital of *Poland*, is situate in 52 Degrees 20 Minutes North Latitude, and in 21 Degrees East Longitude, on the River *Vistula*, in the Province of *Warsovia*, 250 Miles East of *Berlin*. *Warsaw.*

*Cracow*, sometimes reckoned the Capital of *Poland*, is situate in 50 Degrees North Latitude, and in 19 Degrees 30 Minutes East Longitude, on the River *Vistula*, in the Province of *Little-Poland*, 40 Miles East of the Frontiers of *Silesia*, and 140 Miles South-West of *Warsaw*. *Cracow.*

*Dantzick* is situate in 54 Degrees of North Latitude, and 19 Degrees of Eastern Longitude, near the Mouth of the River *Vistula*, which a little below falls into *Friscaff*, a Bay of the *Baltic Sea*, being one of the finest *Dantzick.*

finest Harbours in the *Baltic*, and the most frequented by foreign Merchants of any Town in *Poland*. The chief Rivers in *Poland* are the *Vistula*, the *Memel*, the *Dwina*, the *Nieper* or *Borysthenes*, the *Neister*, and the *Bog*. The most considerable Hills are the *Carpathian Mountains*, which divide *Poland* from *Hungary* and *Transylvania*. *Poland* is a Republic with a King at the Head of it, who is elected by the Gentlemen of the Country when the Throne is vacant; but both the legislative and executive Power is lodged chiefly in the Senate, and Diet or Parliament; the King however has the Nomination of Officers, but can displace none without the Concurrence of the Diet.

S. Which are the *Austrian Dominions* contiguous to *Germany*?

*Austrian Dominions.* M. The Kingdoms of *Bohemia* and *Hungary*, *Transylvania*, *Sclavonia*, and *Croatia*.

S. What is the Situation and Extent of the Kingdom of *Bohemia*?

*Bohemia.* M. The Kingdom of *Bohemia* comprehends *Bohemia Proper*, *Silesia* and *Moravia*, and is situate between 48 and 52 Degrees of North Latitude, and between 12 and 19 Degrees of East Longitude, extending near 300 Miles in Length, and 250 in Breadth. The chief Towns, *Prague*, *Breslaw*, and *Olmuts*.

S. What is the Situation of those great Towns?

*Prague.* M. *Prague*, the Capital of the whole Kingdom, is situate in 50 Degrees of North Latitude, and 14 Degrees 12 Minutes East Longitude, on the River *Muldaw*, 130 Miles North of *Vienna*.

*Breslaw.* *Breslaw*, the Capital of the Province of *Silesia*, is situate in 51 Degrees 15 Minutes North Latitude, and 17 Degrees of Eastern Longitude, 120 Miles North-East of *Prague*.

*Olmuts.* *Olmuts*, the Capital of the Province of *Moravia*, is situate in 49 Degrees 37 Minutes North Latitude, and 16 Degrees 45 Minutes East Longitude, on the River *Moraw*, 75 Miles North of *Vienna*, and 120 Miles S. E. of *Prague*. The chief Rivers of *Bohemia* are, the *Oder*, the *Elbe*, the *Muldaw*, the *Moraw*, the *Eger*, the *Igla*, and the *Teya*. *Bohemia* is an absolute Monarchy, and the Crown hereditary; but the King of *Prussia* has lately deprived the House of *Austria* of the Province of *Silesia*.

S. Please to describe the Situation and Extent of the Kingdom of *Hungary*.

*Hungary.* M. *Hungary* is situate between 45 and 49 Degrees of North Latitude, and between 16 and 23 Degrees

Degrees of Eastern Longitude, being bounded by the *Carpathian* Mountains, which divide it from *Poland* on the North; by *Transylvania* and *Wallachia* on the East; by the River *Danube*, which divides it from *Servia* and *Sclavonia* on the East; and by *Austria* and *Moravia* on the West; and is 300 Miles in Length from East to West, and 240 in Breadth from North to South. The chief Towns are *Presburg* and *Buda*.

S. How are those great Towns situated?

*M. Presburg*, the Capital of *Upper Hungary*, *Presburg*. is situate in 48 Degrees 20 Minutes North Latitude, and 17 Degrees 30 Minutes East Longitude, on the North Shore of the River *Danube*, opposite to the West End of the Island of *Schutz*, 45 Miles East of *Vienna*.

*Buda* is situate in 47 Degrees 44 Minutes North Latitude, and in 19 Degrees 20 Minutes East Longitude, on the West Shore of the River *Danube*, 76 Miles South East of *Presburg*. The chief Rivers are the *Danube*, the *Drave*, the *Theisse*, the *Kallo*, the *Merish*, and the *Raab*. *Hungary* is an absolute Monarchy, and the Crown hereditary, subject to the House of *Austria*.

S. How is *Transylvania* situate?

*M. Transylvania* is situate between 45 and 48 Degrees of North Latitude, and between 22 and 26 Degrees of East Longitude, being bounded by *Poland* on the North, by *Moldavia* and *Wallachia* on the East, by *Bulgaria* on the South, and by *Hungary* on the West, being 200 Miles in Length from North to South, and 120 Miles in Breadth from East to West. The chief Rivers are the *Atlanta* and *Merish*; and the chief Mountains, the *Carpathian*, which divide it from *Hungary*, and the *Irongate* Mountains, which divide it from *Turky*.

The chief Town is *Hermanstat*, situate in 46 Degrees 36 Minutes North Latitude, and in 24 Degrees Eastern Longitude. *Transylvania* was heretofore a distinct Principality, but is now annexed to *Hungary*, as well as the Bannat of *Temiswaer*, and subject to the Crown of *Hungary*.

S. Please to describe the Situation and Extent of *Sclavonia*.

*M. Sclavonia* is situate between 45 and 47 Degrees of North Latitude, and between 16 and 21 Degrees of Eastern Longitude, bounded by the Rivers *Drave* and *Danube*, which divide it from *Hungary* on the North-East, and by the River *Save*, which separates it from *Bosnia*.



*Bosnia* and *Servia* on the South-West, being 200 Miles and more in Length, and 60 in Breadth. The chief Town is *Pofega*, situate in 45 Degrees 30 Minutes North Latitude, and in 18 Degrees 30 Minutes East Longitude. The chief Rivers are the *Danube*, the *Drave*, and the *Save*. This Country also is subject to the *Austrian* Family, who are as absolute here as in *Hungary*.

S. How is *Croatia* situated?

*Croatia*. *M. Croatia* is situate between 45 Degrees 30 Minutes and 46 Degrees 20 Minutes North Latitude, and between 16 and 18 Degrees of East Longitude; bounded by *Sclavonia* on the North, by the River *Unna* which divides it from *Bosnia* on the East, by *Morlachna* on the South, and *Carniola* on the West; being about 70 Miles long, and 60 broad. The chief Town is *Carlsstat*, situate in 46 Degrees 8 Minutes North Latitude, and in 16 Degrees of Eastern Longitude. The chief Rivers are the *Save*, the *Culp*, and the *Unna*. This Country is also subject to the House of *Austria*, and, like *Sclavonia*, is a Province against *Turky*.

S. Please to describe the Situation and Extent of *Germany*.

*Germany*. *M. Germany* is situate between 45 and 55 Degrees of North Latitude, and between 5 and 19 Degrees of East Longitude, bounded by the *German Ocean*, *Denmark*, and the *Baltic Sea* on the North, by *Poland* and *Hungary* (if we include *Bohemia*) on the East, by *Switzerland* and the *Alps*, which separate it from *Italy* on the South, and by the Dominions of *France* and the *Netherlands* on the West, being divided into ten Circles.

S. How are these Circles situated?

*M. 1.* There are three in the North of *Germany*, viz. the Circle of *Upper Saxony*, the Circle of *Lower Saxony*, and the Circle of *Westphalia*.

2. There are three Circles about the Middle of *Germany*; viz. the Circle of *Franconia*, the Circle of the *Upper Rhine*, and the Circle of the *Lower Rhine*.

3. There are three Circles in the South of *Germany*, viz. the Circle of *Austria*, the Circle of *Bavaria*, and the Circle of *Swabia*.

As to the tenth Circle, that of *Burgundy*, it consisted of the Duchy of *Burgundy* and the seventeen Provinces of the *Netherlands*; but this has long been detached from the Empire, and is subject to other Princes.

S. What Countries are comprehended in the Circle of *Upper Saxony*?

*M.* 1. The Marquisate of *Brandenburg*, subject *Upper Saxony*. to the Elector of *Brandenburg* (King of *Prussia*). *Brandenburg*.  
 2. The Duchy of *Pomerania*, subject to the same *Pomerania*. Prince, and the King of *Sweden*. 3. The Duchy of *Saxony*, *Misnia*, *Lusatia*, and *Thuringia*, the *D. of Saxony*. greatest Part whereof is subject to the Elector of *Saxony* (King of *Poland*).

*S.* What are the chief Towns in the Circle of *Upper Saxony*?

*M.* 1. *Berlin*, the Capital of *Brandenburg*, situate on the River *Spree*, in 52 Degrees, 30 Minutes North Latitude, and in 14 Degrees of Eastern Longitude.

2. *Stetin*, the Capital of *Brandenburg Pomerania*, situate on the River *Oder*, in 53 Degrees 30 Minutes North Latitude, and 15 Degrees East Longitude.

3. *Stralsund*, the Capital of *Swedish Pomerania*, situate on the *Baltic Sea*, opposite to the Island of *Rugen*, in 54 Degrees 30 Minutes North Latitude, and in 13 Degrees 20 Minutes East Longitude.

4. *Dresden*, the Capital of *Misnia*, and of all the Elector of *Saxony's German Dominions*, situate on the River *Elbe*, in 51 Degrees of North Latitude, and 36 Minutes East Longitude.

*S.* What Countries are comprehended in the Circle of *Lower Saxony*?

*M.* The Duchies of *Hanover*, *Zell*, *Lunenburg*, *Bremen*, and *Verden*, subject to the Elector of *Hanover*, King of *Great-Britain*. The Duchies of *Brunswick* and *Wolfembutte*, subject to the Duke of *Brunswick* and *Wolfembutte*. The Bishoprick of *Hildesheim*, subject to the Elector of *Cologne*. The Duchies of *Magdeburg* and *Halberstat*, subject to the Elector of *Brandenburg*. The Duchy of *Holstein*, subject to the King of *Denmark* and the Duke of *Holstein*. The Duchy of *Mecklenburg*, subject to the Duke; and the Duchy of *Lawenburg*, subject to the Elector of *Hanover*.

*S.* What are the chief Towns in the Circle of *Lower Saxony*?

- Hanover City.* M. 1. *Hanover*, the Capital of the King of *Great Britain's German Dominions*, situate on the River *Leina*, in 52 Degrees 32 Minutes North Latitude, and 9 Degrees 45 Minutes East Longitude.
- Brunswick.* 2. *Brunswick*, the Capital of the Duke of *Brunswick Wolfembuttle's Territories*, situate on the River *Ocker*, in 52 Degrees 30 Minutes North Latitude, and 11 Degrees 30 Minutes East Longitude.
- Magdeburg.* 3. *Magdeburg*, the Capital of the Elector of *Brandenburg's Dominions* in this Circle, situate on the River *Elbe*, in 52 Degrees 15 Minutes North Latitude, and 12 Degrees East Longitude.
- Gustraw.* 4. *Gustraw*, the Capital of the Duke of *Mecklenburg's Dominions*, situate in 54 Degrees North Latitude, and 12 Degrees 15 Minutes East Longitude.
- Hamburgh.* 5. *Hamburgh*, an Imperial City and Port-Town, situate on the River *Elbe*, in 54 Degrees North Latitude, and 9 Degrees 40 Minutes East Longitude.
- Lubeck.* 6. *Lubeck*, an Imperial City and Port-Town, situate on the River *Trave*, near the *Baltic Sea*, in 54 Degrees 20 Minutes North Latitude, and 10 Degrees 35 Minutes East Longitude.
- Altena.* 7. *Altena*, the Capital of the King of *Denmark's Territories* in *Holstein*, in 54 Degrees North Latitude, and 10 Degrees 30 Minutes East Longitude.
- Lawenburg.* 8. *Lawenburg*, the Capital of the Duchy of *Lawenburg*, situate on the River *Elbe*, in 53 Degrees 45 Minutes North Latitude, and 10 Degrees 37 Minutes East Longitude.
- Bremen.* 9. *Bremen*, the Capital of the Duchy of *Bremen*, an Imperial City, situated on the River *Weser*, in 53 Degrees 25 Minutes North Latitude, and 8 Degrees 20 Minutes East Longitude.
- Westphalia.* S. What Countries are comprehended in the Circle of *Westphalia*?
- Munster.* M. The Duchies of *Munster* and *Westphalia*, the
- Osnaburg, &c.* Bishopricks of *Osnaburg* and *Paderborn*, subject to the Elector of *Cologne*; the Duchies of *Juliers* and *Bergue*, subject to the Elector Palatine; the Duchy of *Cleve*, and the Counties of *Mark Ravensburg* and *Bentheim*, subject to the Elector of *Brandenburg*; the Bishoprick of *Liege*, subject to its Bishop; the Counties of *Lippe*, *Scharwenburg*, *Hoye*,



*Hoye, Diepbolt, Oldenburg, Delmenhurst, Embden, Tecklenburg, Pyrmont, Lingen, Steinfort, Corbey Abbey, and several Towns and small Territories, subject to their respective Sovereigns.*

S. What are the chief Towns in *Westphalia* Circle?

M. 1. *Munster*, the Capital of *Westphalia*, situate on the *Aa*, in 52 Degrees North Latitude, and 7 Degrees 10 Minutes East Longitude. *Munster City.*

2. *Dusseldorp*, Capital of the Duchy of *Berg Dusseldorp*, and of the Elector Palatine's Dominions in *Westphalia*, situate on the River *Rhine*, in 51 Degrees 15 Minutes North Latitude, and 6 Degrees 20 Minutes East Longitude.

3. *Aix la Chapelle*, or *Aken*, an Imperial City *Aix*, in the Duchy of *Fuliers*, celebrated for its Baths, situate in 50 Degrees 45 Minutes North Latitude, and 5 Degrees 50 Minutes East Longitude.

4. *Liege*, Capital of the Bishoprick of *Liege*, *Liege*, situate on the River *Maes*, in 50 Degrees 40 Minutes North Latitude, and 5 Degrees 36 Minutes East Longitude.

S. What Countries are comprehended in the Circle of *Franconia*?

M. The Territory of *Nurenburg*, the Bishopricks of *Bamberg* and *Wurtsburg*, the Marquisate of *Anspach* or *Obnspace*, the Counties of *Holach*, *Archstet*, and *Wertheim*, and the Territories of the Grand Master of the *Teutonic* Order.

S. What considerable Towns are there in the Circle of *Franconia*?

M. 1. *Nurenburg*, the Capital of the Territory *Nurenburg*, of *Nurenburg* and of all *Franconia*, an Imperial City, situate in 49 Degrees 30 Minutes North Latitude, and 11 Degrees of East Longitude, near the Confluence of the Rivers *Regnits* and *Pegnits*.

2. *Bamberg*, Capital of the Bishoprick of *Bamberg*, *Bamberg*, situate on the River *Regnits*, in 50 Degrees 50 Minutes North Latitude, and 10 Degrees 50 Minutes East Longitude.

3. *Wurtsburg*, Capital of the Bishoprick of *Wurtsburg*, *Wurtsburg*, situate on the River *Maine*, in 49 Degrees 46 Minutes North Latitude, and 9 Degrees 50 Minutes East Longitude.

S. What Countries are comprehended in the Circle of the *Upper Rhine*?

*Hesse-Cassel,  
Deuxponts,  
&c.*

*M.* The Duchy of *Deuxponts*, the Landgraves of *Hesse Cassel* and *Hesse Darmstat*, and formerly the Landgravate of *Alsatia*, but that is now a Province of *France*.

*S.* What are the chief Towns in the Circle of the *Upper Rhine*?

*Heidelberg.*

*M.* 1. *Heidelberg*, the Capital of the Palatinate, situate on the River *Neckar*, in 49 Degrees 20 Minutes North Latitude, and 8 Degrees 40 Minutes East Longitude.

*Cassel.*

2. *Hesse-Cassel*, the Capital of that Landgravate, situate on the River *Fuld*, in 51 Degrees 20 Minutes North Latitude, and 9 Degrees 20 Minutes East Longitude.

*Darmstat.*

3. *Hesse Darmstat*, Capital of that Landgravate, situate on the River *Darmstat*, in 49 Degrees 45 Minutes North Latitude, and 8 Degrees 25 Minutes East Longitude.

*Worms.*

4. *Worms*, an Imperial City, situate on the *Rhine*, in 49 Degrees 38 Minutes North Latitude, and 8 Degrees 5 Minutes East Longitude.

*S.* What Countries are comprehended in the Circle of the *Lower Rhine*?

*Lower Rhine.  
Mentz, Triers,  
and Triers,  
and Cogn,  
and the Pala-  
tinate.*

*M.* The three spiritual Electorates of *Mentz*, *Triers*, and *Cogn*, and most Part of the Palatinate of the *Rhine*, with the Territory of *Frankfort*.

*S.* What considerable Towns are there in this Electorate?

*Mentz City.*

*M.* 1. *Mentz*, Capital of the Electorate of *Mentz*, situate at the Confluence of the *Rhine* and *Maine*, in 50 Degrees North Latitude, and 8 Degrees East Longitude.

*Frankfort.*

2. *Frankfort*, situate on the River *Maine*, in 50 Degrees 10 Minutes North Latitude, and 7 Degrees 30 Minutes East Longitude; a free Imperial City, sometimes placed in the Circle of the *Lower Rhine*, and at others in *Franconia*.

*Triers.*

3. *Triers*, or *Treves*, situate on the River *Moselle*, in 49 Degrees 55 Minutes North Latitude, and 6 Degrees 10 Minutes East Longitude; Capital of the Electorate of *Triers*.

*Cogn.*

4. *Cogn*, Capital of the Electorate of *Cogn*, and of all the Circle of the *Lower Rhine*, situate on the River *Rhine*, in 50 Degrees 50 Minutes North Latitude, and 6 Degrees 40 Minutes East Longitude.

*S.* What

S. What Countries are contained in the Circle of *Suabia*?

M. The Duchy of *Wirtemberg*, the Marquisate of *Baden*, the *Burgaw*, the Bishopricks of *Sasburgh* and *Constance*, the Territories of *Ulm*, the *Brisgaw*, and several Imperial Cities and Forest Towns; whereof the Duchy of *Wirtemberg* is subject to the Duke of *Wirtemberg*, and the Territories of *Baden* to the Princes of *Baden*, the *Burgaw*, *Brisgaw*, Forest Towns, and several Principalities of *Suabia*, are subject to the House of *Austria*.

S. What are the chief Towns in *Suabia*?

M. 1. *Augsburg*, an Imperial City, Capital of *Augsburg* the *Burgaw*, situate on the Rivers *Lech* and *War-dour*, in 48 Degrees 20 Minutes North Latitude, and 11 Degrees East Longitude.

2. *Ulm*, an Imperial City, situate at the Confluence of the Rivers *Danube* and *Iller*, in 48 Degrees 24 Minutes North Latitude, and 10 Degrees East Longitude.

3. *Stuttgart*, Capital of the Duke of *Wirtemberg's* Dominions, situate on the River *Neckar*, in 48 Degrees 38 Minutes North Latitude, and 9 Degrees of East Longitude.

4. *Constance*, situate on the Lake of *Constance*, in 47 Degrees 37 Minutes North Latitude, and 9 Degrees 12 Minutes East Longitude, subject to the House of *Austria*.

5. *Baden*, Capital of the Marquisate of *Baden*, situate in 48 Degrees 40 Minutes North Latitude, and 8 Degrees of East Longitude.

6. *Friburg*, Capital of the *Brisgaw*, situate in 48 Degrees 12 Minutes North Latitude, and 7 Degrees 40 Minutes East Longitude.

S. What Countries are contained in the Circle of *Bavaria*?

M. The Duchy of *Bavaria*, the Palatinate of *Bavaria*, the Duchy of *Newburg*, the Territory of *Sultsbach*, the Archbishoprick of *Salzburg*, and the Bishopricks of *Passau* and *Freisingen*.

S. What are the chief Towns in *Bavaria*?

M. 1. The City of *Munich*, Capital of the Duchy and Electorate of *Bavaria*, situate on the River *Isar*, in 48 Degrees 5 Minutes North Latitude, and 11 Degrees 32 Minutes East Longitude.



*Ratisbon.*

2. *Ratisbon*, an Imperial City, where the Diet of the Empire used to be held, situate on the Rivers *Danube* and *Regen*, in 49 Degrees North Latitude, and 13 Degrees 20 Minutes East Longitude.

*Amberg.*

3. *Amberg*, Capital of the Palatinate of *Bavaria*, situate on the River *Ilts*, in 49 Degrees 25 Minutes North Latitude, and 12 Degrees of East Longitude.

*Salzburg.*

4. *Salzburg*, the Capital of the Archbishoprick of *Salzburg*, situate on the River *Saltza*, in 47 Degrees 30 Minutes North Latitude, and 13 Degrees 30 Minutes East Longitude.

*Newburg.*

5. *Newburg*, the Capital of the Duchy of *Newburg*, situate in 48 Degrees 45 Minutes North Latitude, and 11 Degrees 15 Minutes East Longitude.

*Passau.*

6. *Passau*, the Capital of the Bishoprick of *Passau*, situate at the Confluence of the Rivers *Danube*, *Inn*, and *Ilts*, in 48 Degrees 30 Minutes North Latitude, and 13 Degrees 30 Minutes East Longitude.

S. What Countries lie within the Circle of *Austria*?

*Austria.*

M. The Archduchy of *Austria*, the Duchies of *Stiria*, *Carinthia*, and *Carniola*, the County of *Tyrol*, and the Bishopricks of *Trent* and *Brixen*.

S. What are the chief Towns in the Circle of *Austria*?

*Vienna City.*

M. 1. *Vienna*, the Capital of the Archduchy of *Austria* and of the *German Empire*, situate on the River *Danube*, in 48 Degrees 30 Minutes North Latitude, and 16 Degrees 20 Minutes East Longitude.

*Gratz.*

2. *Gratz*, the Capital of the Duchy of *Stiria*, situate on the River *Muer*, in 47 Degrees 20 Minutes North Latitude, and 15 Degrees 55 Minutes East Longitude.

*Clagenfurt.*

3. *Clagenfurt*, the Capital of the Duchy of *Carinthia*, situate in 47 Degrees North Latitude, and 14 Degrees East Longitude.

*Lanbach.*

4. *Lanbach*, the Capital of the Duchy of *Carniola*, situate in 46 Degrees 28 Minutes North Latitude, and 14 Degrees 40 Minutes East Longitude.

*Innsbruck.*

5. *Innsbruck*, the Capital of the County of *Tyrol*, situate on the River *Inn*, in 47 Degrees 12 Minutes North Latitude, and 11 Degrees 26 Minutes East Longitude.

6. *Trent*,

6. *Trent*, the Capital of the Bishoprick of *Trent*, *Trent*. situate on the River *Adige*, in 46 Degrees 5 Minutes North Latitude, and 11 Degrees of East Longitude.

S. What considerable Rivers are there in *Germany*?

M. The *Danube*, the *Rhine*, the *Elbe*, the *Weser*, the *Oder*, the *Maes*, the *Inn*, the *Moselle*, and the *Havel*.

S. Please to describe the Situation and Extent of the *Netherlands*.

M. The *Netherlands* are situate between 50 and 53 Degrees North Latitude, and between 2 and 7 Degrees of East Longitude, bounded by the *German Sea* on the North, by *Germany* on the East, by *Lorraine* and *France* on the South, and by another Part of *France* and the *British Seas* on the West, extending near 300 Miles in Length, and 200 in Breadth.

These Provinces are 17 in Number, whereof seven, which are under the Dominion of the *Dutch*, are called the *United Provinces*, the other ten are called the *Austrian* and *French Netherlands*, being most of them subject to those Powers.

The Names of the *United Provinces* are, 1. *Holland*. 2. *Zeland*. 3. *Friesland*. 4. *Groningen*. 5. *Overissel*. 6. *Gelderland* with *Zutphen*; and 7. *Utrecht*. United Provinces, Holland, &c.

S. What are the chief Towns in the *United Provinces*?

M. 1. *Amsterdam*, the Capital of the Province of *Holland*, and of all the *United Provinces*, situate on the River *Amstel*, and a Bay of the *Zuyder Sea*, in 52 Degrees 40 Minutes North Latitude, and 4 Degrees 30 Minutes East Longitude. Amsterdam.

2. *Rotterdam*, situate on the River *Maes*, in 52 Degrees North Latitude, and 4 Degrees East Longitude. Rotterdam.

3. *Middleburg*, the Capital of the Province of *Zeland*, situate in the Island of *Walcheren*, in 51 Degrees 33 Minutes North Latitude, and 3 Degrees 30 Minutes East Longitude. Middleburg.

4. *Nimeguen*, situate on the River *Waal*, in the Province of *Guelderland*, in 51 Degrees 55 Minutes North Latitude, and 5 Degrees 50 Minutes East Longitude. Nimeguen.

5. *Utrecht*, the Capital of the Province of *Utrecht*, situate on the Channel of the *Old Rhine*, in 52 Degrees 7 Minutes North Latitude, and 5 Degrees East Longitude. Utrecht.

*Lewarden.* 6. *Lewarden*, the Capital of the Province of *Friesland*, situate in 53 Degrees North Latitude, and 5 Degrees 35 Minutes East Longitude.

S. What are the chief Rivers in the United Provinces.

*Rivers.* M. The *Rhine*, the *Lech*, the *Waal*, the *Maes*, and the *Scheld*.

S. What are the Names of the other ten Provinces?

*Austrian and French Netherlands.* M. 1. *Brabant*. 2. *Flanders*. 3. *Hainalt*. 4. *Limburg*. 5. *Luxemburg*. 6. *Namur*. 7. *Artois*. 8. The *Cambresis*. 9. The Marquisate of *Antwerp*; and, 10. The Lordship of *Malines* or *Mechlin*: Of these the *French* possess the intire Provinces of *Artois* and *Cambray*, Part of *Flanders*, *Hainalt*, and *Luxemburgh*, and the *Dutch* possess the North of *Brabant* and *Flanders*; all the rest are subject to the House of *Austria*.

*Dutch Flanders.*

S. What are the chief Towns in the *Austrian* and *French Netherlands*?

*Brussels.* M. 1. *Brussels*, the Capital of *Brabant*, and of all the *Austrian Netherlands*, situate on the River *Senne*, in 50 Degrees 50 Minutes North Latitude, and 4 Degrees 40 Minutes East Longitude.

*Ghent.* 2. *Ghent* or *Gaunt*, the Capital of *Austrian Flanders*, situate on the four Rivers of the *Scheld*, *Lys*, *Lieue*, and *Mourwater*, in 51 Degrees of North Latitude, and 3 Degrees 36 Minutes East Long.

*Lisle.* 3. *Lisle*, the Capital of the *French Netherlands*, situate in the Province of *Flanders*, on the River *Deule*, in 50 Degrees 42 Minutes North Latitude, and 3 Degrees East Longitude.

*Mons.* 4. *Mons*, the Capital of *Hainalt*, situate near the Banks of the Rivers *Haine* and *Trouille*, in 50 Degrees 34 Minutes North Latitude, and 3 Degrees 33 Minutes East Longitude.

*Namur.* 5. *Namur*, the Capital of the Province of *Namur*, situate at the Confluence of the Rivers *Sambre* and *Maes*, in 50 Degrees 30 Minutes North Latitude, and 4 Degrees 50 Minutes East Long.

*Antwerp.* 6. *Antwerp*, the Capital of the Marquisate of *Antwerp*, situate on the River *Scheld*, in 51 Degrees 50 Minutes North Latitude, and 4 Degrees 15 Minutes East Longitude.

*Mechlin.* 7. *Malines* or *Mechlin*, the Capital of the Lordship of *Mechlin*, situate in 51 Degrees 10 Minutes North Latitude, and 4 Degrees 22 Minutes East Lon-



Longitude, on the united Streams of the Rivers Dyle and Demer.

8. *Luxemburg*, the Capital of the Duchy of *Luxemburg*, situate on the River *Else*, in 49 Degrees 45 Minutes North Latitude, and 6 Degrees 8 Minutes East Longitude. *Luxemburg.*

9. *Limburg*, the Capital of the Duchy of *Limburg*, situate on the River *Vise*, in 50 Degrees 37 Minutes North Latitude, and 6 Degrees 5 Minutes East Longitude. *Limburg.*

S. Which are the principal Rivers in *Flanders*?

M. The *Maes*, the *Sambre*, the *Scheld*, the *Lys*, the *Scarpe*, the *Senne*, the *Mehain*, the *Deule*, the *Dyle*, and the *Demer*. *Rivers.*

S. Please to describe the Situation and Extent of the Kingdom of *France*.

M. *France* is situate between 5 Degrees West and 7 Degrees East Longitude, and between 42 and 50 Degrees of North Latitude, being bounded by the *English Channel* and the *Netherlands* on the North, by *Germany*, *Switzerland*, *Savoy* and *Piedmont* on the East, by the *Mediterranean Sea* and the *Pyrenean Mountains* on the South, and by the Bay of *Biscay* on the West, being almost square, and upwards of 500 Miles over either Way. *France.*

S. Please to enumerate the Provinces or Governments in *France*.

M. 1. *Picardy*. 2. *Normandy*. 3. *Britanny*; and 4. the *Isle of France* on the North. *Provinces.*  
5. *Orleanois*, and 6. *Lionois* in the Middle.  
7. *Guienne* and *Gascony*. 8. *Languedoc*. 9. *Provence*; and 10. *Dauphine* on the South.  
11. *Burgundy*. 12. *Champaign*. 13. The *French Netherlands*. 14. *Lorraine*; and 15. *Alsace* on the East.

S. Which are the chief Towns?

M. 1. *Paris*, the Capital of the *Isle of France*, and of the whole Kingdom, situate on the River *Seyne*, in 48 Degrees 50 Minutes North Latitude, and 2 Degrees 25 Minutes East Longitude. *Paris.*

2. *Rouen*, Capital of the Province of *Normandy*, situate on the *Seyne* in 49 Degrees 26 Minutes North Latitude, and in 1 Degree 5 Minutes East Longitude. *Rouen.*

3. *Orleans*, Capital of the Government of *Orleanois*, situate on the River *Loyre* in 47 Degrees *Orleans.*

55 Mi-

55 Minutes North Latitude, and 2 Degrees of Eastern Longitude.

*Lions.*

4. *Lions*, the capital City of the Government of *Lionois*, situate at the Confluence of the Rivers *Rhone* and *Soane*, in 45 Degrees 50 Minutes North Latitude, and 4 Degrees 55 Minutes East Longitude.

*Toulon.*

5. *Thoulon*, or *Toulon*, the best Port Town in *France*, is situate in *Provence*, on a Bay of the *Mediterranean* opposite to the Islands of *Hieres*, in 43 Degrees 5 Minutes North Latitude, and 6 Degrees East Longitude.

*Thouluse.*

6. *Thouluse*, the Capital of the Province of *Languedoc*, is situate on the River *Garonne*, in 43 Degrees 40 Minutes North Latitude, and 1 Degree 5 Minutes East Longitude.

*Bordeaux.*

7. *Bordeaux*, the Capital of the Province of *Bourdelois*, and of the Government of *Guienne* and *Gascony*, situate on the River *Garonne*, in 44 Degrees 50 Minutes North Latitude, and 40 Minutes West Longitude.

*Nantz.*

8. *Nantz*, a great Port Town in the Province of *Britanny*, situate on the River *Loyre*, in 47 Degrees 15 Minutes North Latitude, and 1 Degree 30 Minutes West Longitude.

*Brest.*

9. *Brest*, the most considerable Port Town of *France* upon the Ocean, situate on the Coast of *Britanny*, in 48 Degrees 25 Minutes North Latitude, and 4 Degrees 30 Minutes West Longitude.

S. What are the chief Rivers in *France*?

*Rivers.* M. The *Rhone*, the *Soane*, the *Garonne*, the *Loyre*, the *Seyne*, the *Dordonne*, the *Oyse*, the *Marne*, the *Aube*, the *Ifere*, and the *Durance*.

S. What are the chief Mountains?

*Mountains.* M. The *Alps*, which separate *France* from *Italy*; the Mountains of the *Cevennes* and *Auvergne*; the Mountains of *Vauge*, which divide *Francbe Comte* from *Alsace* and *Lorrain*; and the *Pyrennees*, which divide it from *Spain*.

S. Please to describe the Situation and Extent of *Turky* in *Europe*.

*Turky in Europe.* M. *Turky* in *Europe* is the South-East Part of *Europe*, and comprehends all those Countries, enumerated already in the general Division of *Europe*, which lie between 36 and 44 Degrees of North Latitude,

Latitude, and between 17 and 40 Degrees of Eastern Longitude, extending 1000 Miles and upwards in Length from East to West, and 500 Miles in Breadth from North to South.

S. What are the chief Towns of *Turky* in *Europe*?

M. 1. *Constantinople*, situate on the *Bosphorus* *Constantinople*. or Strait which separates *Europe* from *Asia*, in 41 Degrees 30 Minutes North Latitude, and 29 Degrees 15 Minutes Eastern Longitude; being the Capital of the Province of *Romania*, and of the whole *Turkish* Empire.

2. *Adrianople*, situate in the Province of *Romania*, in 42 Degrees North Latitude, and 26 Degrees 30 Minutes East Longitude.

3. *Belgrade*, the Capital of the Province of *Belgrade*. *Servia*, situate on the River *Danube*, in 45 Degrees North Latitude, and 21 Degrees of East Longitude.

4. *Salonichi*, or *Theffalonica*, a Port Town of *Salonichi*. *Macedonia*, situate on the *Archipelago*, or *Egean* Sea, in 41 Degrees North Latitude, and 24 Degrees 20 Minutes East Longitude.

5. *Athens*, or *Settines*, the Capital of *Achaia* or *Athens*. *Livadia*, situate in 38 Degrees of North Latitude, and in 24 Degrees 30 Minutes East Longitude.

6. *Napoli de Romania*, a Port Town, the Capital *Napoli*. of the *Morea*, situate in 37 Degrees 30 Minutes North Latitude, and in 23 Degrees 20 Minutes East Longitude.

7. *Lepanto*, situate on the Gulph of *Lepanto* in the Province of *Achaia*, in 38 Degrees of North Latitude, and 23 Degrees of East Longitude.

8. *Negropont*, or *Egripos*, the Capital of the *Negropont*. Island of *Negropont*, the largest Island in the *Egean* Sea or *Archipelago*, situate in 38 Degrees 30 Minutes North Latitude, and 24 Degrees 30 Minutes East Longitude.

The chief Rivers of *Turky* in *Europe*, are, the *Rivers*. *Danube*, the *Save*, the *Alauta*, the *Niesler*, and the *Pruth*.

The chief Mountains are those of *Rhodope* or *Mountains*. *Argentum*, which divide *Romania* and *Macedon* from *Bulgaria* and *Servia*, and the Mountain *Parnassus* in *Greece*.

S. Which are the principal *Turkish* Islands in *Europe*?



*Ilands in European Turkey.* *M.* The numerous Islands in the *Archipelago* or *Egean* Sea are all subject to the *Turks*, whereof Part lies in *Europe*, and Part in *Asia*, of which the largest *European* Island is that of *Negropont* already mentioned, anciently called *Eubea*, situate North-East of the Coast of *Achaia*, or *Livadia*, by which it is separated by the narrow Sea called the *Euripus*, remarkable for its irregular Tides, which flow sometimes 13 or 14 times in 24 Hours. The Islands of *Lemnos*, *Sciros*, *Andros*, and *Melos*, are of a considerable Extent. These and the rest are inhabited chiefly by *Grecian* Christians.

*S.* What is the Situation and Extent of *Italy*?

*Italy.* *M.* *Italy* is situate between 38 and 46 Degrees of North Latitude, and between 7 and 19 Degrees of Eastern Longitude, being about 600 Miles long, and from 80 to 400 broad. It is bounded by *Switzerland* and the *Alps*, which separate it from *Germany* on the North, by the Gulph of *Venice* on the East, by the *Mediterranean* Sea on the South, and by the same Sea and the *Alps*, which separate it from *France*, on the West; and

*Divisions.* comprehends the following Countries: viz. 1. The Principality of *Piedmont*, the Duchy of *Savoy*, and the Duchy of *Monferrat*, subject to the King of *Sardinia*. 2. The Duchies of *Milan*, *Padua*, and *Parma*, subject to the House of *Austria*. 3. The Duchy of *Modena*, subject to its own Duke. 4. The large Dominions of the Republick of *Venice*; all which lie in the North of *Italy*. 5. The Duchy of *Tuscany*, subject to the Grand Duke, the present Emperor of *Germany*. 6. The little Republic of *Lucca*. 7. The Pope's extensive Territories, which last three lie in the Middle of *Italy*. 8. The Kingdom of *Naples*, which takes up the South of *Italy*, and is subject to the King of the *Two Sicilies*.

*S.* Which are the chief Towns in *Italy*?

*Turiz.* *M.* 1. *Turin*, the Capital of *Piedmont*, and of the King of *Sardinia*'s Dominions, situate on the River *Po*, in 44 Degrees 50 Minutes North Latitude, and 7 Degrees 16 Minutes East Longitude.

*Chamberry.* 2. *Chamberry*, the Capital of *Savoy*, situate in 45 Degrees 40 Minutes North Latitude, and 5 Degrees 45 Minutes East Longitude.

*Genoa.* 3. *Genoa*, the Capital of the Republick of *Genoa*, situate on a Bay of the *Mediterranean*, called the *Riviere* of *Genoa*, in 44 Degrees 30 Minutes

Minutes North Latitude, and 9 Degrees 30 Minutes East Longitude.

4. *Milan*, the Capital of the Duchy of *Milan* *Milan.* and of the *Austrian* Dominions in *Italy*, situate on the River *Olana*, in 45 Degrees 20 Minutes North Latitude, and 9 Degrees 30 Minutes East Longitude.

5. *Mantua*, the Capital of *Mantua*, situate in the Middle of a Lake, in 45 Degrees 20 Minutes North Latitude, and 11 Degrees 15 Minutes East Longitude. *Mantua.*

6. *Parma*, the Capital of the Duchy of *Parma*, *Parma.* situate in 44 Degrees 45 Minutes North Latitude, and 11 Degrees East Longitude.

7. *Venice*, the Capital of the *Venetian* Dominions, situate on several Islands at the Bottom of the Gulph of *Venice*, five Miles from the Continent, in 45 Degrees 40 Minutes North Latitude, and 13 Degrees East Longitude. *Venice.*

8. *Florence*, the Capital of the Duchy of *Tuscany*, *Florence.* situate on the River *Arno*, in 43 Degrees 30 Minutes North Latitude, and 12 Degrees 15 Minutes East Longitude.

9. *Leghorn*, or *Livorno*, the most considerable Port Town in the Duchy of *Tuscany*, if not in all *Italy*, situate on the *Tuscan* Sea, in 43 Degrees 30 Minutes North Latitude, and 11 Degrees East Longitude. *Leghorn.*

10. *Modena*, the Capital of the Duchy of *Modena*, *Modena.* situate in 44 Degrees 45 Minutes North Latitude, and 11 Degrees 20 Minutes East Longitude.

11. *Lucca*, the Capital of the Republic of *Lucca*, *Lucca.* situate near the River *Secchia*, in 43 Degrees 45 Minutes North Latitude, and 11 Degrees 20 Minutes East Longitude.

12. *Rome*, the Capital of the *Campania*, and of all the Pope's Dominions, situate on the River *Tiber*, in 41 Degrees 50 Minutes North Latitude, and 13 Degrees 15 Minutes East Longitude. *Rome.*

13. *Naples*, the Capital of the Kingdom of *Naples*, *Naples.* situate on a Bay of the *Tuscan* Sea, in 41 Degrees North Latitude, and 15 Degrees of East Longitude.

S. Which are the most considerable Rivers of *Italy*?

*Rivers.*

*M.* The *Po*, the *Adige*, the *Stura*, the *Arno*, the *Tiber*, and the *Volturno*.

*S.* Which are the highest Mountains?

*Mountains.*

*M.* The *Alps*, which divide *Italy* from *Germany* and *France*; and the *Apennine*, which runs the whole Length of *Italy*; and Mount *Vesuvius* in *Naples*, remarkable for its *Vulcano*.

*S.* Which are the most considerable *Italian* Islands?

*Islands.*

*M.* *Sicily*, *Sardinia*, *Corfica*, the *Lipari* Islands, and that of *Elba*.

*S.* What is the Situation and Extent of the Island of *Sicily*?

*Sicily.*

*M.* *Sicily* is situate in the *Mediterranean* Sea, between 37 and 38 Degrees 30 Minutes North Latitude, and between 12 and 15 Degrees of East Longitude, being about 160 Miles long, and 100 broad; separated from the Kingdom of *Naples* in *Italy* by the narrow Strait of *Messina*, the chief Port Town.

*Palermo.*

1. *Palermo*, the Capital of *Sicily*, situate on the North Coast of the Island, in 38 Degrees 16 Minutes North Latitude, and 12 Degrees 40 Minutes East Longitude.

*Messina.*

2. *Messina*, a great Port Town, situate at the East End of the Island, opposite to *Regio* in *Naples*, in 38 Degrees 30 Minutes North Latitude, and 15 Degrees 45 Minutes East Longitude. This Island, with the Kingdom of *Naples*, is subject to Don *Carlos*, who styles himself King of the *Two Sicilies*?

*Mount Etna.*

In the Island of *Sicily*, is *Mount Etna*, the most terrible *Vulcano* in *Europe*, which has, by its Eruptions and Earthquakes, destroyed some of the best Towns in the Island.

*S.* Please to describe the Situation and Extent of the Islands of *Sardinia* and *Corfica*.

*Sardinia.*

*M.* *Sardinia* is situate in the *Mediterranean* Sea, between 39 and 41 Degrees of North Latitude, and between 8 and 10 Degrees of Eastern Longitude, being 140 Miles in Length from North to South, and 70 in Breadth from East to West; the capital Town *Cagliari*, situate on a Bay of the Sea, at the South-End of the Island in 39 Degrees of North Latitude, and 9 Degrees of Eastern

*Cagliari.*



Eastern Longitude, subject to the King of *Sardinia*.

*Corfica* is situate between 41 and 43 Degrees of North Latitude, and between 9 and 10 Degrees of East Longitude, in the *Mediterranean Sea*, separated from the Island of *Sardinia* on the South by the Strait of *Bonifacio*; the chief Town, *Bastia*, is situate on the East Side of the Island, in 42 Degrees 40 Minutes North Latitude, and 9 Degrees 50 Minutes East Longitude. The Island being subject to the Republic of *Genoa*.

S. What is the Situation and Extent of *Switzerland*?

*M. Switzerland* is situate between 45 and 48 Degrees of North Latitude, and between 6 and 10 Degrees of East Longitude, bounded by *Germany* on the North and East; by the Territories of *Venice*, *Piedmont*, and *Savoy* in *Italy* on the South; and by *France* on the West; being 180 Miles in Length from East to West, and 140 in Breadth from North to South; consisting of a great many independent Cantons, or Republicks, of which those of *Bern*, *Zurich*, and the *Grisons* are the chief.

S. What are the chief Towns in *Switzerland*?

*M. 1. Bern*, the Capital of the Canton of *Bern*, and of all *Switzerland*, situate on the River *Aar*, in 47 Degrees North Latitude, and 7 Degrees 20 Minutes East Longitude.

2. *Coire*, the Capital of the *Grisons*, situate on the River *Rhine*, in 46 Degrees 40 Minutes North Latitude, and 9 Degrees 25 Minutes East Longitude.

3. *Zurich*, the Capital of the Canton of *Zurich*, situate at the North End of the Lake of *Zurich*, in 47 Degrees 25 Minutes North Latitude, and 8 Degrees 30 Minutes East Longitude.

4. *Geneva*, situate on the River *Rhone*, at the West End of the Lake *Lemain*, or *Geneva*, in 48 Degrees 20 Minutes North Latitude, and 6 Degrees of East Longitude.

5. *Basil*, the Capital of the Canton of *Basil*, situate on the River *Rhine*, near the Confines of *Alsace*, in 47 Degrees 40 Minutes North Latitude, and 7 Degrees 40 Minutes East Longitude.

6. *Ba-*

*Baden.*

6. *Baden*, the Capital of the Territory of *Baden*, where the States or Representatives of the Cantons assemble, situate in 47 Degrees 35 Minutes North Latitude, and 8 Degrees 15 Minutes East Longitude.

*Mountains.*

*Switzerland* is the most mountainous Country in *Europe*, being situate on the *Alps*, the best natural Fortification in the World against the Nations which surround them; viz. *France* *Germany*, and *Italy*.

*Rivers.*

Several of the largest Rivers also have their Sources here; viz. the *Danube*, the *Rhine*, the *Rhone*, and innumerable Torrents which fall precipitately from the Mountains on the melting of the Snow; and there are Lakes on the Tops of their highest Mountains.

S. Please to describe the Situation and Extent of *Spain*.

*Spain.*

M. *Spain* is a Peninsula, surrounded by the *Atlantic* Ocean and the *Mediterranean* Sea, except on the North-East, where it is joined to *France* by the *Pyrenean* Mountains, and is situated between 36 and 44 Degrees of North Latitude, and between 10 Degrees West and 3 Degrees Eastern Longitude, being bounded by the Bay of *Biscay*, Part of the *Atlantic* Ocean and *France* on the North, by the *Mediterranean* and the Strait of *Gibraltar* and the *Atlantic* Ocean on the South, and by the same *Atlantic* Ocean on the West, being upwards of 600 Miles in Length from East to West, and almost as many in Breadth; but in this Description *Portugal* is included, which was once a Province of *Spain*.

*Provinces.*

S. What Provinces are comprehended in the Kingdom of *Spain*?

M. 1. *Galicia*. 2. *Asturia*. 3. *Biscay*, on the North. 4. *Navarre*. 5. *Aragon*. 6. *Catalonia*. 7. *Valencia*, on the East. 8. *Murcia*. 9. *Granada*. 10. *Andalusia*, on the South. 11. *Old Castile*. 12. *New Castile*. 13. *Leon*, and 14. *Estremadura*, in the Middle of *Spain*.

S. What are the chief Towns in *Spain*?

*Madrid.*

M. 1. *Madrid*, the Capital of the Kingdom, situate in the Province of *New Castile*, in 40 Degrees

Degrees 30 Minutes North Latitude, and 4 Degrees, 12 Minutes West Longitude.

2. *Toledo*, heretofore the Capital of the Kingdom, situate in the Province of *New Castile*, on the River *Tagus*, in 39 Degrees 45 Minutes North Latitude, and 4 Degrees 10 Minutes West Longitude.

3. *Compostella*, the Capital of *Galicia*, situate in 43 Degrees of North Latitude, and 9 Degrees 15 Minutes West Longitude.

4. *Bilboa*, the Capital of the Province of *Biscay*, situate at the Mouth of a River which falls into the Bay of *Biscay*, in 43 Degrees 30 Minutes North Latitude, and 3 Degrees of West Longitude.

5. *Saragossa*, the Capital of the Province of *Arragon*, situate on the River *Ebro*, in 41 Degrees 50 Minutes North Latitude, and 1 Degree 15 Minutes West Longitude.

6. *Barcelona*, the Capital of the Province of *Catalonia*, situate on the *Mediterranean*, in 41 Degrees 20 Minutes North Latitude, and 2 Degrees of East Longitude.

7. *Valencia*, the Capital of the Province of *Valencia*, situate on the River *Guadalaviar*, in 39 Degrees 20 Minutes North Latitude, and 35 Minutes West Longitude.

8. *Carthagen*, in the Province of *Mercia*, situate on a Bay of the *Mediterranean*, one of the best Harbours in *Spain*, in 37 Degrees 40 Minutes North Latitude, and 1 Degree 5 Minutes West Longitude.

9. *Granada*, the Capital of the Province of *Granada*, situate in 37 Degrees 15 Minutes North Latitude, and 3 Degrees 40 Minutes West Longitude.

10. *Gibraltar*, a Port-Town in the Province of *Andalusia*, situate on the Strait, between the Ocean and the *Mediterranean*, which separates *Europe* from *Africa*, in 36 Degrees North Latitude, and 6 Degrees West Longitude, subject to *Great Britain*.

11. *Cadiz*, the most considerable Port-Town in *Spain*, chief Station of the *Spanish* Men of War and Galleons, situate on the Island of *Leon*,



in the Province of *Andalusia*, in 36 Degrees 30 Minutes North Latitude, and 6 Degrees 40 Minutes West Longitude.

*Seville.*

12. *Seville*, the Capital of the Province of *Andalusia*, situate on the River *Guadalquivir*, in 37 Degrees 15 Minutes North Latitude, and 6 Degrees West Longitude.

S. What are the most considerable Rivers and Mountains in *Spain*?

*Rivers.*

M. The chief Rivers are the *Ebro*, the *Guadalquivir*, the *Guadiana*, the *Tagus*, the *Doura*, and the *Minho*.

*Mountains.*

The most considerable Mountains are those of the *Pyrenees*, which separate *France* and *Spain*; and Branches of those, under several Names, run through *Spain* from East to West; it being generally a very mountainous Country. *Mount Calpe*, which covers the Town of *Gibraltar*, is one of the Pillars of *Hercules*; that of *Mount Abile* in *Africa*, on the opposite Side of the Strait of *Gibraltar*, being the other.

*Hercules Pillars.*

S. Which are the chief *Spanish* Islands?

*Spanish Islands.*  
*Majorca.*

M. Those anciently called the *Baleares*; viz. *Majorca*, *Minorca*, and *Ivica*.

*Majorca*, the largest, is situate between 2 and 3 Degrees of Eastern Longitude, and between 39 and 40 Degrees of North Latitude; the chief Town *Majorca*.

*Minorca.*

*Minorca*, the least of these Islands, is situate in 40 Degrees North Latitude, and 4 Degrees of East Longitude; the chief Town *Port-Mahon*, subject to *Great-Britain*.

*Ivica.*

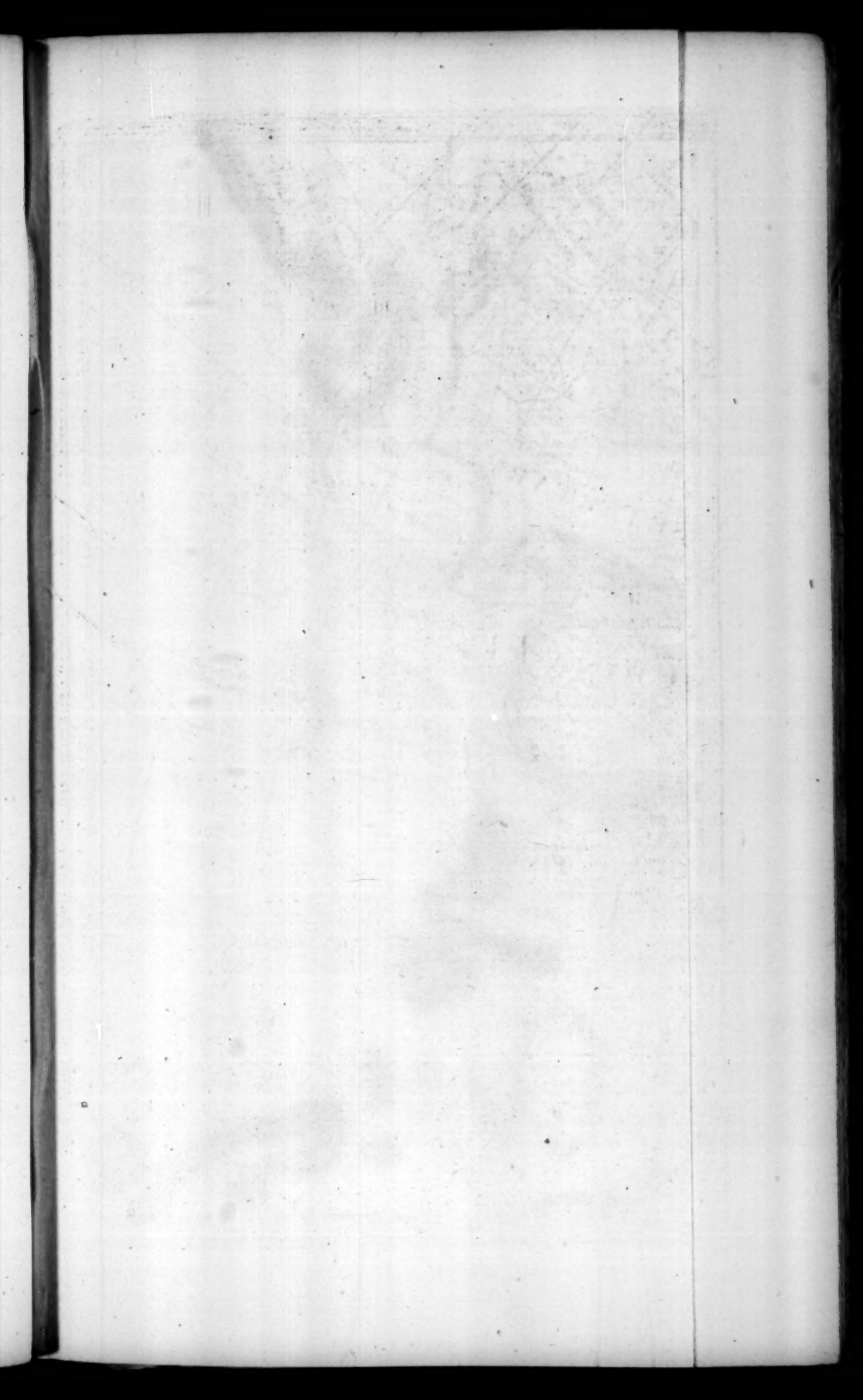
*Ivica* is situate in 39 Degrees of North Latitude, and 1 Degree of East Longitude.

S. How is *Portugal* situated?

*Portugal.*

M. *Portugal* is situate between 37 and 42 Degrees of North Latitude, and between 7 and 10 Degrees of West Longitude, being upwards of 300 Miles in Length from North to South, and 100 in Breadth; bounded by the *Spanish* Province of *Gallicia* on the North, by other Parts of *Spain* on the East, and by the *Atlantic* Ocean on the South and West.

S. What Provinces are comprehended in *Portugal*?



*Drawn from the most approved  
modern Maps & Charts & regulated  
by Astron. Observations*  
By Eman. Bowen  
Geog. to His Majesty

2747.







*M.* 1. *Entre Minho Douro*; 2. *Tralos Montes* on the North; 3. *Beira*; and, 4. *Estremadura* in the Middle; 5. *Alenteio*; and, 6. *Algarva* in the South.

*S.* Which are the chief Towns?

*M.* 1. *Lisbon*, the Capital of the Province of *Lisbon*. *Estremadura* and of the whole Kingdom, situate near the Mouth of the River *Tagus*, and the *Atlantic Ocean*, in 38 Degrees 45 Minutes North Latitude, and 9 Degrees West Longitude.

2. *St. Ubes*, situate on a Bay of the *Atlantic Ocean* in 38 Degrees 30 Minutes North Latitude, and 9 Degrees West Longitude. *St. Ubes.*

3. *Porto*, situate near the Mouth of the River *Porto*. *Douro*, and the Ocean, in the Province of *Entre Minho Douro*, in 41 Degrees North Latitude, and 9 Degrees West Longitude.

The chief Rivers in *Portugal* are the *Tagus*, Rivers. the *Guadiana*, the *Minho*, and the *Douro*.

## A S I A.

*S.* **W**HAT is the Situation and Extent of *Asia*?

*M.* *Asia* is situate between the Equator and 72 Degrees North Latitude, and between 25 and 148 Degrees of East Longitude, being 4800 Miles in Length from East to West, and 4300 in Breadth from North to South, comprehending, 1. the Empire of *China*, and *Chinesian Tartary*, *Tibet*, and *Independent Tartary*, with *Japan*, and the other Oriental Islands in the East. 2. *India*, *Usbeck Tartary*, *Calmuck Tartary*, and *Siberia* in the Middle. 3. The Kingdom of *Persia*, *Arabia*, *Astracan*, *Circassian Tartary*, and *Turky* in *Asia* on the West; and is bounded by the *Frozen Ocean* on the North, by the *Pacific Ocean* on the East, by the *Indian Ocean* on the South, by the *Red Sea* which separates it from *Africa* on the South-West, and by *Europe* on the North-West.

*S.* How is *China* situated?

*M.* *China*, comprehending *Chinesian Tartary*, *China*, is situate between 95 and 139 Degrees of Eastern Longitude, and between 21 and 55 Degrees of North Latitude, being about 2000 Miles in Length from North to South, and 1000 Miles in Breadth from East to West; bounded

by *Russian Tartary* on the North, by the Pacific Ocean on the East and South, and by *Tonquin Tibet*, and the Territories of *Russia* on the West.

S. What are the chief Towns in *China*?

*Peking.*

M. 1. *Peking*, the Capital of the Province of *Peking* and of the whole Empire, situate 60 Miles South of the great Wall, in 40 Degrees North Latitude, and 111 Degrees East Longitude.

*Nanking.*

2. *Nanking*, The Capital of the Province of *Nanking*, situate near the Mouth of the River *Kiam* and the *Kang* Sea, in 32 Degrees of North Latitude, and 118 Degrees of East Longitude.

*Canton.*

3. *Canton*, the Capital of the Province of *Canton*, situate on the River *Ta*, in 23 Degrees 25 Minutes North Latitude, and 112 Degrees 30 Minutes East Longitude.

*Rivers.*

S. What are the chief Rivers?

*Islands.*

M. The *Croceus* or *Hoambo*, and the *Kiam*; and there are two considerable Islands on the Coast of *China*, and subject to that Empire; viz. that of *Hainan* in the South of *China*, and that of *Formosa* on the South-West of *China*.

*Tibet.*

S. How are *Tibet* and *Independent Tartary* situate?

M. They lie between 30 and 35 Degrees of North Latitude, and between 75 and 85 Degrees of Eastern Longitude, having *Siberia* on the North, *China* on the East, *India* on the South, and the *Usbeck* and *Calmuck Tartars* and another Part of *Siberia* on the West.

S. Please to describe the Situation and Extent of the Islands of *Japan*.

*Japan.*

M. The Islands of *Japan* are situated between 30 and 40 Degrees North Latitude, and between 130 and 140 Degrees of East Longitude, of which there are great Numbers, but the three chief are those of, 1. *Japan Proper* or *Nippon*; 2. *Sacock*; and, 3. *Tonsa*.

*Japan Proper.*

1. *Japan Proper*, the most Northerly of these Islands, is about 600 Miles in Length from North to South, and from 100 to 150 Miles broad.

*Sacock.*

2. *Sacock* is about 500 Miles in Circumference.

*Tonsa.*

3. *Tonsa* is 400 Miles in Circumference.

*Jeddo.*

The chief Towns are, 1. *Jeddo* or *Yedo*, the Capital of the Empire, situate in 36 Degrees of



of North Latitude, and 141 Degrees of East Longitude.

2. *Saccai*, situate in 35 Degrees of North Latitude, and 135 Degrees of East Longitude. *Saccai*.

3. *Bongo*, situate in 32 Degrees of North Latitude, and 131 Degrees of East Longitude. *Bongo*.

4. *Nangasaque*, situate in 32 Degrees North Latitude, and 130 Degrees East Longitude. *Nangasaque*.

S. What other Islands are comprehended under the Name of the Oriental Islands?

M. All the Islands South of *China* and the *Farther India* may properly be called the *Oriental Islands*.

*Islands*; particularly, 1. The *Philippine Islands*;

2. *Gilola*, with the *Moluccas* or Clove Islands; 3.

*Ceram*, with *Amboyna*, *Banda*, and the rest of the

*Nutmeg Islands*; 4. *Celebes*, or *Macassar*; 5. *Borneo*;

6. *Java*, with the Islands of *Bally* and *Florin*,

and the rest of the Islands East of *Java*; and, 7.

The Island of *Sumatra*.

The *Philippine Islands* are very numerous, and lie between 5 and 19 Degrees North Latitude, and

between 114 and 127 Degrees of East Longitude;

whereof the Islands of *Manila*, or *Luconia*, and

*Mindanao*, are the chief.

1. That of *Manila*, or *Luconia*, is 400 Miles long and 200 broad. The chief Town

*Manila*, situate on a Bay of the Sea, in the South-West Part of the Island, in 15 Degrees of North Latitude, and 118 Degrees of East Long.

The Island of *Mindanao* is situate between 5 and 10 Degrees of North Latitude, and between 120 and 126 Degrees of East Longitude. The chief Town *Mindanao*, situate on the South West Coast of the Island, in 7 Degrees North Latitude, and 121 Degrees of East Longitude. *Mindanao*.

2. *Gilola*, with the *Molucca* or Clove Islands, are situate between 1 Degree of South Latitude, and

2 Degrees North Latitude. The chief of the Clove Islands is *Ternate*, situate in 1 Degree 15 Minutes North Latitude, and 124 Degrees of East Longitude, scarce 30 Miles in Circumference. This, with the rest of the Clove Islands, was usurped by the *Dutch* in the Reign of King *James I.* and the Cloves are now eradicated, and planted only in the Island of *Amboyna*, which is

situate in 3 Degrees 40 Minutes South Latitude, and 126 Degrees of East Longitude. It was here that the *Dutch* tortured and massacred several of the *English* Factors and Merchants, and then drove the rest out of the Clove Islands.

*Ceram.*  
*Banda, or*  
*Nutmeg*  
*Islands.*

3. *Ceram* and the Islands of *Banda*, which only produce Nutmegs, are situate between 3 and 4 Degrees of South Latitude, and between 125 and 129 Degrees of East Longitude. Here the *Dutch* destroyed both the *English* and the Natives in the Reign of King *James I.* usurped the Dominion of these Islands also, and have kept Possession of them ever since.

*Celebes.*

4. The Island of *Celebes*, or *Macassar*, is situate between 2 Degrees North, and 6 Degrees South Latitude, and between 116 and 124 Degrees of East Longitude, being 500 Miles long, and 200 broad. The chief Town *Macassar*, situate on the South-West Coast of the Island, in 117 Degrees of East Longitude, and 5 Degrees of South Latitude.

*Macassar.*

*Borneo.*

5. *Borneo*, the largest Island in the known World, situate between 7 Degrees 30 Minutes North Latitude and 4 Degrees of South Latitude, and between 107 and 117 Degrees of Eastern Longitude. The chief Town *Borneo*, situate on the North-West Part of the Island, in 4 Degrees 30 Minutes North Latitude, and 111 Degrees 30 Minutes East Longitude.

*Java.*

6. The Island of *Java*, situate between 5 and 8 Degrees of South Latitude, and between 102 and 113 Degrees of East Longitude. The Capital City *Batavia*, situate in 6 Degrees South Latitude, and 106 Degrees of East Longitude. The Capital of all the *Dutch* Settlements in *Asia*, and the East Coast of *Africa*.

*Batavia.*

*Sumatra.*

7. The Island of *Sumatra*, situate between 5 Degrees South and 5 Degrees North Latitude, and between 91 and 105 Degrees of East Longitude. The Capital City *Achen*, situate at the North End of the Island. The two last are usually called the *Sunda* Islands, from the Straits of *Sunda*, which lie near them between *Java* and *Sumatra*.

*Achen.*

S. What Countries are comprehended under the Name of *India*?

*M. India*

*M. India* is usually divided into two Parts, the one *India*. beyond the River *Ganges*, contiguous to *China*, and the other on this Side the *Ganges*, contiguous to *Persia*. *India* beyond the *Ganges* comprehends, *Beyond*

1. *Tonquin*. 2. *Cochin-China*. 3. *Laos*. 4. *Cambodia*. *Ganges*. 5. *Siam* and *Malacca*. 6. *Pegu*, *Ava*, and *Acham*.

S. What are the respective Situations of these Countries?

*M. 1. Tonquin* is situate between 17 and 26 *Tonquin*. Degrees of North Latitude, and between 101 and 108 Degrees of East Longitude, bounded by *China* on the North and East, by *Cochin China* on the South, and by the Kingdom of *Laos* on the West. The Capital City *Cachao*, or *Keccio*.

*Cachao* is situate in 22 Degrees 30 Minutes *Cachao*. North Latitude, and 105 Degrees East Longitude.

2. *Cochin China*, situate between 104 and 109 *Cochin China*. Degrees of East Longitude, and between 10 and 17 Degrees of North Latitude, bounded by *Tonquin* on the North, by the *Indian Ocean* on the East and South, and by *Cambodia* on the West.

3. *Laos* is bounded by *China* on the North, by *Laos*. *Tonquin* on the East, by *Siam* and *Cambodia* on the South, and by *Ava* and *Pegu* on the West.

4. *Cambodia*, situate between 8 and 15 Degrees *Cambodia*. of North Latitude, bounded by *Laos* on the North, by *Cochin China* on the East, by the *Indian Ocean* on the South, and by the Bay of *Siam* on the West. The chief Town *Cambodia*, situate in 12 Degrees North Latitude, and 104 Degrees of East Longitude.

5. *Siam*, including *Malacca*, is situate between *Siam*. the Equator and 18 Degrees of North Latitude, and between 92 and 102 Degrees of East Longitude. The chief Towns, *Siam* and *Malacca*.

*Siam*, the Capital of the Kingdom of *Siam*, is situate on the River *Menan*, in 14 Degrees of North Latitude, and 100 Degrees of East Longitude.

*Malacca*, the Capital of the Territory of *Ma-Malacca*. *Malacca*, is situate in 2 Degrees 30 Minutes North Latitude, and 100 Degrees of East Longitude, on the Strait between *Malacca* and *Sumatra*, to which it gives its Name, and with the adjacent Country is subject to the *Dutch*, who, being Masters of this



Strait and that of *Sunda*, have it in their Power to exclude all Nations from trading to *China* and the *Oriental* Islands on the East.

*Pegu.*

6. *Pegu*, including *Ava* and *Acham*. These Countries are situate on the East Side of the Bay of *Bengal*, between 15 and 25 Degrees of North Latitude, and between 91 and 100 Degrees of Eastern Longitude. The capital City, *Pegu*, is situate in 17 Degrees 30 Minutes North Latitude, and 97 Degrees of East Longitude.

*Ladron  
Islands.*

Besides the Islands already mentioned, are those of the *Ladrones*, situate in the *Pacific Ocean*, in 140 Degrees of East Longitude, and between 12 and 28 Degrees of North Latitude; also the *Andaman* and *Nicobar* Islands, near the Coast of *Siam*, on the East Side of the Bay of *Bengal*.

*Andaman,  
Nicobar.*

S. What is the Situation and Extent of *India* on this Side *Ganges*, or the *Hither India*?

*India on this  
Side Ganges.*

M. This Country, which is most properly called *India* or *Indostan*, is situate between 7 and 40 Degrees of North Latitude, and between 66 and 92 Degrees of East Longitude; being about 2000 Miles in Length from North to South, and from 300 to 1500 in Breadth from East to West, bounded by *Usbeck Tartary* and *Tibet* on the North, by another Part of *Tibet*, the Kingdoms of *Acham*, *Ava* and *Pegu*, on the East, by the Bay of *Bengal* and the *Indian Ocean* on the South, and by the same Ocean and the Kingdom of *Persia* on the West. The chief Towns *Agra*, *Delly*, *Labor*, and *Surat*.

*Towns.*

*Agra.*

1. *Agra*, once the Capital of *India*, is situate on the River *Jemma*, in 26 Degrees 20 Minutes North Latitude, and 79 Degrees of East Longitude.

*Delly.*

2. *Delly*, the present Capital of *India*, is situate in 28 Degrees of North Latitude, and 79 Degrees of East Longitude.

*Labor.*

3. *Labor*, the Capital of the Province of *Labor*, is situate in 33 Degrees of North Latitude, and 75 Degrees of East Longitude.

*Surat.*

4. *Surat*, the most considerable Port-Town of *India*, is situate in 21 Degrees 20 Minutes North Latitude, and in 72 Degrees 15 Minutes East Longitude.

S. What

S. What are the principal Rivers and Mountains of *India*?

M. The chief Rivers are those of *Ganges*, *Indus*, *Rivers*, and *Attock*.

The chief Mountains are those of *Balegate*, *Mountains*, which run through the Middle of *India* from North to South, and those which divide *India* from *Tartary*, called *Balch* and *Bember*, said to be Branches of Mount *Caucasus*.

S. What is the Situation of *Usbeck Tartary*?

M. *Usbeck Tartary* and *Mongul* or *Mogul Tar-* *Usbeck Tartary* are the same; this being the Country of *tary* and *Mo-Tamerlane*, the first *Great Mogul*, who was not *gul*, only Sovereign of these Countries, but of *Persia* and *India*, and from whom the *Moguls* of *India* are descended.

The present Country denominated *Usbeck Tartary* is situate between 35 and 45 Degrees of North Latitude,, and between 64 and 77 Degrees of East Longitude, having the *Calmuck Tartars* on the North, *Independent Tartary* on the East, *India* and *Persia* on the South, and a Desert which lies between this Country and the *Caspian Sea* on the West.

The chief Towns are *Bochara* and *Samarcand*. Towns.

1. *Bochara*, their present Capital, is situate in *Bochara*. 39 Degrees North Latitude, and 65 Degrees of East Longitude.

2. *Samarcand*, once the Capital of *Usbeck Tar-* *Samarcand*. *tary*, and of all *Tamerlane's* Dominions, is situate in 40 Degrees of North Latitude, and 66 Degrees of East Longitude.

The *Calmuck Tartars* lie North of *Usbeck Tar-* *Calmuck tartary* and the *Caspian Sea*, and have no Towns or *Tartary*. settled Habitation, but have lately put themselves under the Protection of *Russia*, and therefore may now well be esteemed a Part of *Siberia*.

S. What is the Situation of *Siberia*?

M. *Siberia*, if we include *Calmuck Tartary*, *Siberia*. is situate between 44 and 72 Degrees North Latitude, and between 60 and 100 Degrees of East Longitude, bounded by the Frozen Ocean on the North, by the *Pacific Ocean*, *China*, and *Independent Tartary*, on the East, by another Part of

*Independent Tartary and Usbeck Tartary on the South, and European Russia and Astracan on the West. The chief Town, Tobolski.*

*Tobolski.* *Tobolski* is situate on the River *Tobol*, on the Confines of *Europe* and *Asia*, in 57 Degrees 30 Minutes North Latitude, and 63 Degrees of East Longitude. The chief Rivers are, the *Oby*, the *Jeniffa* and *Lena*.

*Rivers.*

*S.* What is the Situation and Extent of *Persia*?

*Persia.*

*M. Persia* is situate between 25 and 45 Degrees of North Latitude, and between 45 and 67 Degrees of East Longitude, being 1200 Miles long, and almost as many broad, bounded by *Circassian Tartary*, the *Caspian Sea* and the River *Oxus*, which separates it from *Usbeck Tartary* on the North, by *India* on the East, by the *Indian Ocean*, the Gulphs of *Ormuz* and *Boffora* on the South, and by the *Turkish Empire* on the West. The chief Towns are, *Ispahan*, *Schiras*, *Gombron*, *Mesched*, *Asterabat*, and *Tauris*.

*Towns.*

*Ispahan.*

1. *Ispahan*, the Capital of the Province of *Irac Agem*, and of the whole Kingdom of *Persia*, which is situate in 32 Degrees 30 Minutes North Latitude, and 50 Degrees East Longitude.

*Schiras.*

2. *Schiras*, the Capital of the Province of *Farfistan*, is situate in 30 Degrees North Latitude, and 53 Degrees East Longitude.

*Gombron.*

3. *Gombron*, the greatest Port Town in *Persia*, is situate in the Province of *Parfistan*, at the Entrance of the Gulph of *Persia*, opposite to the Island of *Ormuz*, in 27 Degrees 30 Minutes North Latitude, and 55 Degrees 30 Minutes East Longitude.

*Mesched.*

4. *Mesched*, the Capital of the Province of *Chorassan*, situate in 36 Degrees of North Latitude, and 57 Degrees 30 Minutes East Longitude.

*Asterabat.*

5. *Asterabat*, the Capital of the Province of *Asterabat*, situate on the *Caspian Sea*, in 37 Degrees North Latitude, and 54 Degrees 30 Minutes East Longitude.

*Tauris.*

6. *Tauris*, the ancient *Ecbatana*, situate in the Province of *Adirbeitzan*, in 38 Degrees 20 Minutes



nutes North Latitude, and 46 Degrees 30 Minutes East Longitude.

The chief Rivers in *Persia* are those of *Kur* or *Rivers*. *Cyrus*, *Arras* or *Araxes*, *Oxus*, and *Herat*.

The chief Mountains, *Caucasus*, of which *Ara-Mountains*. *rat* is a Part, situate between the *Euxine* and *Persian Seas*; and *Mount Taurus*, which runs cross *Persia* from *Turky* to *India*; the Branches whereof very much incumber this Kingdom. It being one of the mountainous Countries in *Asia*, and has at the same time scarce one navigable River.

S. What is the Situation and Extent of *Arabia*?

*M. Arabia* is situate between 11 and 30 Degrees *Arabia*. of North Latitude, and between 35 and 60 Degrees of East Longitude, being upwards of 1200 Miles in Length and 900 in Breadth, bounded by *Turky* on the North, the Kingdom and Gulph of *Persia* or *Bassora* on the East, the *Indian Ocean* on the South, and the *Red Sea* which separates it from *Africa* on the West, the North-West Part of it between *Egypt* and *Palestine* is denominated *Arabia Petrea*, the Middle of it *Arabia Deserta*, *Arabia Petrea*. and the South *Arabia Felix*; but the Limits of *Arabia Deserta*. any of them have never been exactly described. *Arabia Felix*.

The chief Towns are *Medina*, *Mecca*, *Mocha*, *Towns*. *Aden*, *Muscat*, and *Bassora*.

1. *Medina*, remarkable for *Mahomet's Tomb*, is *Medina*. situate in 24 Degrees 30 Minutes North Latitude, and 40 Degrees 40 Minutes East Longitude.

2. *Mecca*, situate in 21 Degrees 20 Minutes *Mecca*. North Latitude, and 43 Degrees 30 Minutes East Longitude, celebrated for the *Kaaby* or *Holy-House*, to which the *Mahometan Nations* go in Pilgrimage, and for being the Place of *Mahomet's* Nativity.

3. *Mocha*, or *Moco*, is situate at the Mouth of *Moco*. the *Red Sea* just within the Straits of *Babmandel*, in 13 Degrees of North Latitude, and 45 Degrees of East Longitude; a considerable Port-Town, which supplies all Nations almost with Coffee that grows in the adjacent Country.

4. *Aden*

*Aden.*

4. *Aden*, a Port Town a little East of the Straits of *Babmandel*, in 12 Degrees of North Latitude, and 46 Degrees of East Longitude.

*Muscat.*

5. *Muscat*, a Port Town at the Entrance of the Gulph of *Ormuz*, in 23 Degrees 30 Minutes North Latitude, and 58 Degrees of East Longitude.

*Bassora.*

6. *Bassora*, or *Bassora*, a Port Town situate on the West Side of the River *Euphrates*, in 30 Degrees North Latitude, and 47 Degrees East Longitude.

*Rivers.*

There are no navigable Rivers in *Arabia* but the *Euphrates* and *Tygris*, which unite their Streams in the Province of *Iracca Arabia*, and fall into the Gulph of *Persia* or *Bassora* a little below the City of *Bassora*.

*Mountains.*

There are several Mountains, among which those of Mount *Sinai* and Mount *Horeb*, in *Arabia Petraea*, are the most remarkable.

S. What is the Situation and Extent of *Turky* in *Asia*?

*Turky in Asia.*

*M. Turkey* in *Asia* is situate between 30 and 44 Degrees of North Latitude, and between 26 and 45 Degrees of East Longitude, comprehending the Countries of, 1. *Diarbec*, the ancient *Mesopotamia*; 2. *Curdestan*, Part of the ancient *Assyria*; 3. *Turcomania*, the ancient *Armenia*; 4. Part of *Georgia*, *Mengrelia*, and *Circassia*; 5. *Syria* and *Palestine*; and, 6. *Natolia*, or *Asia Minor*.

S. What are the chief Towns of *Turky* in *Asia*?

*Towns.*

*M. Erzerum*, *Diarbec*, *Aleppo*, *Jerusalem*, *Damascus*, *Smyrna*, *Bursa*, *Tocat*, and *Trepisond*.

*Erzerum.*

1. *Erzerum*, the Capital of the Province of *Turcomania* or *Armenia*, is situate in 40 Degrees of North Latitude, and 41 Degrees of East Longitude.

*Diarbec.*

2. *Diarbec*, the Capital of the Province of *Diarbec*, or *Mesopotamia*, is situate on the River *Tigris*, in 37 Degrees 30 Minutes North Latitude, and 42 Degrees East Longitude.

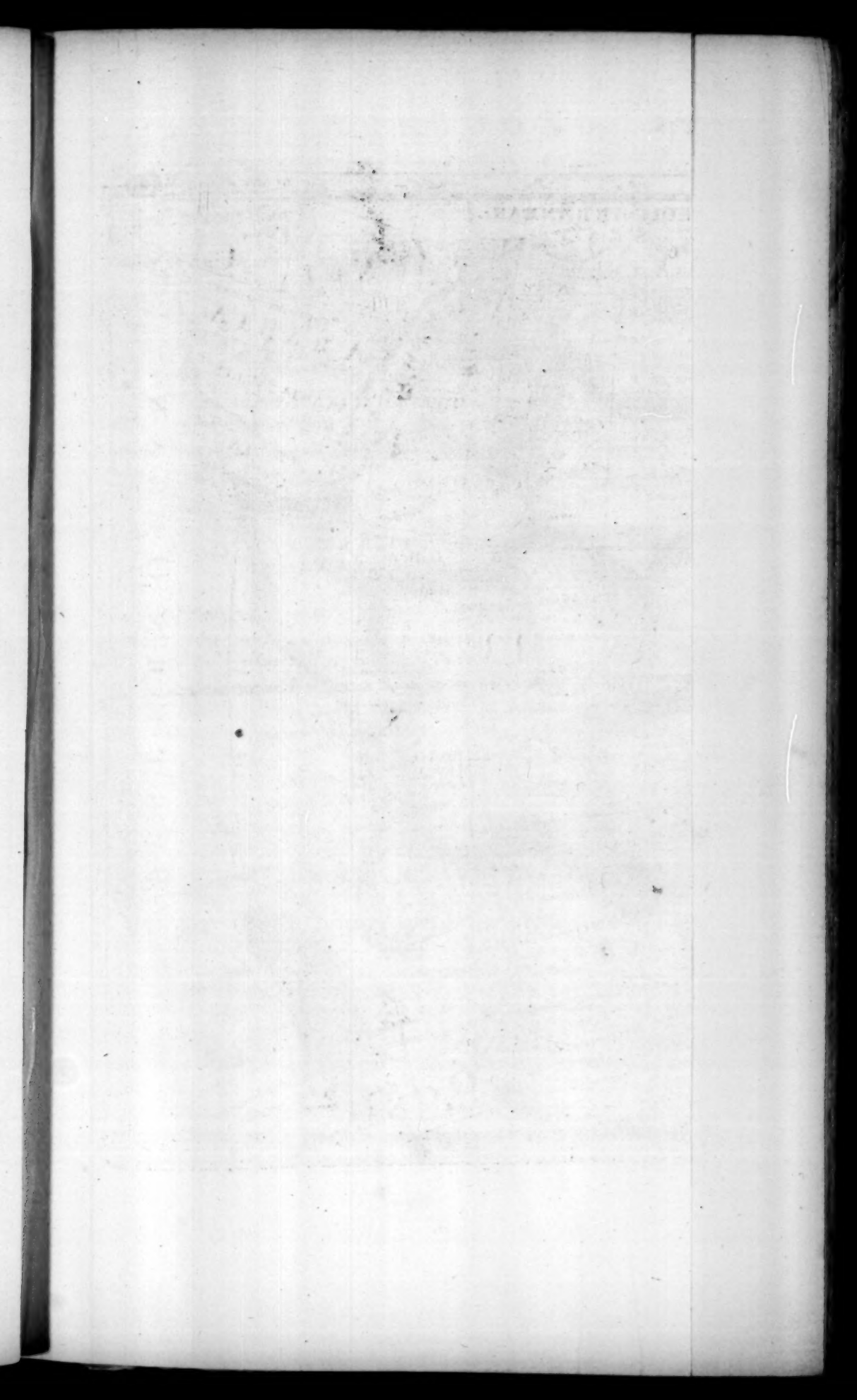
*Aleppo.*

3. *Aleppo*, the Capital of the Beglerbelic of *Aleppo*, it situate in 36 Degrees 30 Minutes North Latitude, and 37 Degrees 40 Minutes East Longitude.

*Jerusalem.*

4. *Jerusalem*, the Capital of *Palestine*, is situate in 32 Degrees North Latitude, and 36 Degrees of East Longitude.

5. *Da-*









5. *Damascus*, or *Scham*, the Capital of *Syria*, is *Damascus*. situate in 33 Degrees, 15 Minutes North Latitude, and 37 Degrees 20 Minutes East Longitude.

6. *Smyrna*, a Port Town in the *Lesser Asia*, situate on a Bay of the *Archipelago*, in 37 Degrees 30 Minutes North Latitude, and 28 Degrees of Eastern Longitude.

7. *Bursa*, or *Prusa*, the Capital of *Bythinia* in the *Lesser Asia*, is situate at the Foot of Mount *Olympus*, in 40 Degrees 30 Minutes North Latitude, and 29 Degrees of East Longitude.

8. *Tocat*, the Capital of the Province of *Amasia* in the *Lesser Asia*, situate in 41 Degrees 30 Minutes North Latitude, and 37 Degrees East Longitude.

9. *Trepisond*, or *Trapezonde*, a Port Town of *Trepisond*. *Amasia* in the *Lesser Asia*, situate on the *Euxine Sea*, in 42 Degrees 26 Minutes North Latitude, and 42 Degrees 20 Minutes East Longitude.

S. What are the chief Rivers and Mountains of *Turky in Asia*?

M. The chief Rivers are the *Tigris* and *Euphrates*.

The Mountains are *Taurus*, *Anti-Taurus*, *Caucasus*, *Ararat*, *Libanus*, Mount *Zion*, the Mountains about *Jerusalem*, and Mount *Olympus* in *Bythinia*.

S. What is the Situation of *Astracan*?

M. The Kingdom of *Astracan* is Part of the *Russian Dominions in Asia*, and situate on the North Side of the *Caspian Sea*, between 45 and 50 Degrees of North Latitude, and between 51 and 57 Degrees of East Longitude.

*Astracan City*, the Capital of the Kingdom, is situate on the River *Volga*, in 47 Degrees North Latitude, and 52 Degrees of East Longitude.

## A F R I C A.

S. WHAT is the Situation and Extent of *Africa*?

M. *Africa* is situate between 37 Degrees of North Latitude and 35 Degrees of South Latitude, and between 18 Degrees West Longitude and 51 Degrees East Longitude; bounded on the North



by the *Mediterranean* Sea, which divides it from *Europe*, and by the *Red Sea* and the *Indian Ocean* on the East, which divide it from *Asia*, by the Southern Ocean on the South, and by the *Atlantic Ocean* on the West, being about 4320 Miles long from North to South, and 4200 Miles broad from East to West.

*Africa* is surrounded by Seas on every Side, only joined to the Continent of *Asia* by the narrow Isthmus of *Suez*, which is not 100 Miles over on the North-East.

S. What Countries are comprehended in *Africa*?

*Divisions of Africa.* M. 1. *Egypt*; 2. *Abyssinia* or *Ethiopia Superior*, in which *Nubia* may be comprehended; 3. *Abex*, *Anian*, and *Zanguebar*, which Countries lie on the East Side of *Africa*; 4. *Monoemgi*, *Monomotapa*, and *Caffraria*, sometimes called *Ethiopia Inferior*, which Countries lie on the South of *Africa*. 5. *Congo*, *Angola*, and *Guinea*, which are situate on the South-West of *Africa*; 6. *Negroland*, *Zaara*, *Bildulgerid*, and the Empire of *Morocco*, which Countries lie in the Middle and on the North-West of *Africa*; and, 7. The Coast of *Barbary*, running along the *Mediterranean* on the North of *Africa*, and comprehending the Countries of *Algiers*, *Tunis*, *Tripoli*, and *Barca*.

S. What is the Situation and Extent of *Egypt*?

*Egypt.* M. *Egypt* is situate between 21 and 31 Degrees of North Latitude, and between 30 and 36 Degrees of East Longitude, being 600 Miles in Length from North to South, and from 100 to 200 in Breadth from East to West, bounded by the *Levant* or *Mediterranean* Sea on the North, by the *Red Sea* which separates it from *Arabia* on the East, by *Abyssinia* on the South, and by the Deserts of *Barca* on the West. The chief Towns, *Grand Cairo*, *Alexandria*, *Rosetto*, *Damietta*, and *Suez*.

Towns.

*Cairo.*

1. *Grand Cairo*, the Capital of *Egypt*, is situate in 30 Degrees of North Latitude, and 32 Degrees of Eastern Longitude.

*Alexandria.*

2. *Alexandria*, a great Port Town of the *Lower Egypt*, is situate in 30 Degrees 40 Minutes North Latitude, and in 31 Degrees 15 Minutes East Longitude.

*Rosetto.*

3. *Rosetto* is situate near the Mouth of the Western Branch of the *Nile*, in 31 Degrees of North Latitude, and in 31 Degrees 30 Minutes East Longitude.

4. *Da-*

4. *Damietta*, the ancient *Pelufum*, is situate on *Damietta*. the most easterly Branch of the *Nile*, near its Mouth, in 31 Degrees of North Latitude, and 31 Degrees 30 Minutes East Longitude.

5. *Suez* is a Port-Town, situate at the North *Suez*. End of the *Red Sea*, in 30 Degrees North Latitude, and 34 Degrees of East Longitude.

The only River in *Egypt* is the *Nile*, which runs *River*. through the Middle of it from South to North, and annually overflows the Country towards the latter End of the Summer, whereby the Land is vastly enriched.

S. What are the chief Towns in *Abyssinia*, *Nubia*, and *Abex*?

*M. Dambea*, *Dancala*, and *Matzuma*. Towns.

1. *Dambea*, the Capital of *Abyssinia*, or *Ethiopia* *Dambea*. *Superior*, is situate on the Lake *Dambea*, in 15 Degrees of North Latitude, and 34 Degrees of East Longitude.

2. *Dancala*, the Capital of *Nubia*, is situate on *Dancala*. the River *Nile*, in 17 Degrees of North Latitude, and 33 Degrees 30 Minutes East Longitude.

3. *Matzuma*, a Port-Town, Capital of *Abex*, is *Matzuma*. situate on the Coast of the *Red Sea*, in 17 Degrees North Latitude, and 40 Degrees of East Longitude.

The only River of these Countries is the *Nile*, *River*. which rises in the Lake *Dambea*, in the Middle of *Abyssinia*, and having first taken a circular Course, runs due North through the Middle of *Egypt*, and falls into the *Mediterranean* by several Channels. *Abyssinia* is full of steep Mountains, from whence the Rain falling in Torrents when the Sun is vertical, occasions the Overflowing of the *Nile*.

S. What are the chief Towns on the Eastern and Southern Coast of *Africa*?

*M. Adel*, *Melinda*, *Mombaze*, *Mozambique*, Towns. *Sofala*, and the Town called the *Cape of Good Hope*.

1. *Adel*, the Capital of the Country of *Anian*, *Adel*. situate in 8 Degrees North Latitude, and 44 Degrees of East Longitude.

2. *Melinda*, a Port Town of *Zanguebar*, the *Melinda*. Capital of the Province of *Melinda*, and of all the *Portuguese* Settlements on the East Coast of *Africa*,

situate,

situate in 3 Degrees South Latitude, and 39 Degrees East Longitude.

*Mombaze.*

3. *Mombaze*, situate in an Island on the Coast of *Zanguebar*, in the Mouth of the River *Cuavo*, in 4 Degrees 30 Minutes South Latitude, and 39 Degrees of East Longitude.

*Mozambique.*

4. *Mozambique*, the Capital of the Province of *Mozambique* in *Zanguebar*, situate in an Island in the Mouth of the River *Mozambique*, in 15 Degrees South Latitude, and 40 Degrees of East Longitude.

*Sofala.*

3. *Sofala*, situate on the Sea Coast, at the Mouth of the River *Sofala*, in 20 Degrees South Latitude, and 35 Degrees of East Longitude.

*Cape.*

6. The *Cape of Good-Hope*, situate near the most Southern Promontory of *Africa*, the Capital of the *Dutch* Settlements in *Caffraria*, or the Country of the *Hottentots*, in 34 Degrees 15 Minutes South Latitude, and 16 Degrees of East Longitude.

*Rivers.*

The chief Rivers on this Coast are those of *Zambeze*, *Santa Maria*, and *Delagoa*.

*Guinea.*

8. What are the chief Towns on the Coast of *Guinea* and the South-West Part of *Africa*?

*Towns.*

*M. Benguela*, *St. Salvador*, *Loango*, *Benin*, *Whidah*, *Acra*, *St. George del Mina*, and *Cape Coast Castle*.

*Benguela.*

1. *Benguela*, the Capital of the Territory of *Benguela*, in the Kingdom of *Angola*, situate on the Sea Coast, at the Mouth of the River *Benguela*, in 11 Degrees South Latitude, and 14 Degrees of East Longitude.

*St. Salvador.*

2. *St. Salvador*, the Capital of the Kingdom of *Congo*, situate on the River *Lunde*, in 4 Degrees South Latitude, and 16 Degrees of East Longitude.

*Loango.*

3. *Loango*, the Capital of the Territory of *Loango*, and of the *Portuguese* Settlements on the South-West Coast of *Africa*, situate on a small Island in the Mouth of a River of the same Name, in 2 Degrees 30 Minutes South Latitude, and 14 Degrees of East Longitude.

*Benin.*

4. *Benin*, the Capital of the Kingdom of *Benin*, situate on the River *Formosa*, in 7 Degrees 30 Minutes North Latitude, and 5 Degrees of East Longitude.

5. *Whidah*



5. *Whidah*, or *Hidah*, the Capital of the Kingdom of *Whidah*, on the Slave Coast in *Guinea*, in 6 Degrees North Latitude, and 3 Degrees of East Longitude.

6. *Acra*, situate on the Gold Coast of *Guinea*, *Acra*. in 5 Degrees of North Latitude, and 40 Minutes East Longitude; where the *English* have a Factory.

7. *St. George del Mina*, the Capital of the *Dutch Del Mina*. Settlements on the *Guinea* Coast, situate in 5 Degrees of North Latitude, and one Degree of Western Longitude.

8. *Cape-Coast-Castle*, the Capital of the *English Cape-Coast*. Settlements on the Coast of *Guinea*, situate in 5 Degrees North Latitude, under the Meridian of *London*.

The chief Rivers on this Coast are *Ambrißi*, *Rivers*. *Zara*, *Cameron*, *Formosa*, *Volta*, and *Leon*.

S. What are the Towns on the North-West Coast of *Africa*? *North-West Coast*.

*M. James Fort*, *St. Louis*, *Tombut*, *Zanbaga*, *Towns*. *Tafilet*, *Fez*, *Morocco*, *Tangier*, *Tetuan*, *Arzilla*, and *Velez*.

1. *James Fort*, the Capital of the *English* Settlements in *Negroland*, situate on a small Island in the Mouth of the River *Gambia*, in 14 Degrees of North Latitude, and 16 Degrees of West Longitude. *James Fort*.

2. *St. Louis*, the Capital of the *French* Settlements in *Negroland*, situate in the Mouth of the River *Senegal*, in 16 Degrees North Latitude, and 16 Degrees 15 Minutes West Longitude. *St. Louis*.

3. *Tombut*, the Capital of *Negroland*, situate in *Tombut*. 14 Degrees 30 Minutes North Latitude, and 11 Degrees 20 Minutes West Longitude.

4. *Zanbaga*, the Capital of *Zaara*, situate in *Zanbaga*. 23 Degrees 30 Minutes North Latitude, and 12 Degrees West Longitude.

5. *Tafilet*, the Capital of *Biledulgerid*, situate in *Tafilet*. 27 Degrees North Latitude, and 5 Degrees 30 Minutes West Longitude.

6. *Fez*, the Capital of the Kingdom of *Fez*, and *Fez*. of the Empire of *Morocco*, situate on the River *Cebu*, in 33 Degrees 30 Minutes North Latitude, and 6 Degrees of West Longitude.

Morocco.

7. *Morocco*, the Capital of the Kingdom of *Morocco*, situate in 32 Degrees of North Latitude, and 9 Degrees of West Longitude.

Tangier.

8. *Tangier*, a Port-Town, situate at the Entrance of the Strait of *Gibraltar* in the Kingdom of *Fez*, in 35 Degrees 40 Minutes North Latitude, and 7 Degrees of West Longitude, formerly the Capital of *Mauritania Tingitana*.

Tetuan.

9. *Tetuan*, a Town of the Kingdom of *Fez*, situate within the Strait of *Gibraltar*, in 35 Degrees 40 Minutes North Latitude, and 6 Degrees 35 Minutes West Longitude.

Arzilla.

10. *Arzilla*, a Port-Town and Fortrefs, situate on the Coast of *Fez* in the *Atlantic Ocean*, in 35 Degrees 40 Minutes North Latitude, and 6 Degrees 30 Minutes West Longitude, in the Possession of the *Portuguese*.

Velez.

11. *Velez*, a Port-Town of the Kingdom of *Fez*, situate on the Coast of the *Mediterranean*, within the Strait of *Gibraltar*, in 35 Degrees 34 Minutes North Latitude, and 5 Degrees of West Longitude; in the Possession of the *Spaniards*.

Rivers.

The chief Rivers on the North-West Coast of *Africa* are the River *Niger*, the River *Grande*, the River *Gambia*, and the River *Senegal*; whereof the three last are conjectured to be Branches of the River *Niger*. All these, like the *Nile*, overflow the Country annually the latter End of the Summer, and render it fruitful. The chief Mountains are those of *Atlas*.

Mountains.

Barbary.

S. What are the chief Towns on the North of *Africa*, usually called the Coast of *Barbary*?

Towns.

M. *Oran*, *Algiers*, *Tunis*, and *Tripoli*.

Oran.

1. *Oran* is a Port-Town and Fortrefs, situate in the Kingdom of *Algiers*, on the Coast of the *Mediterranean*, in 36 Degrees 30 Minutes North Latitude, under the Meridian of *London*, subject to the *Spaniards*.

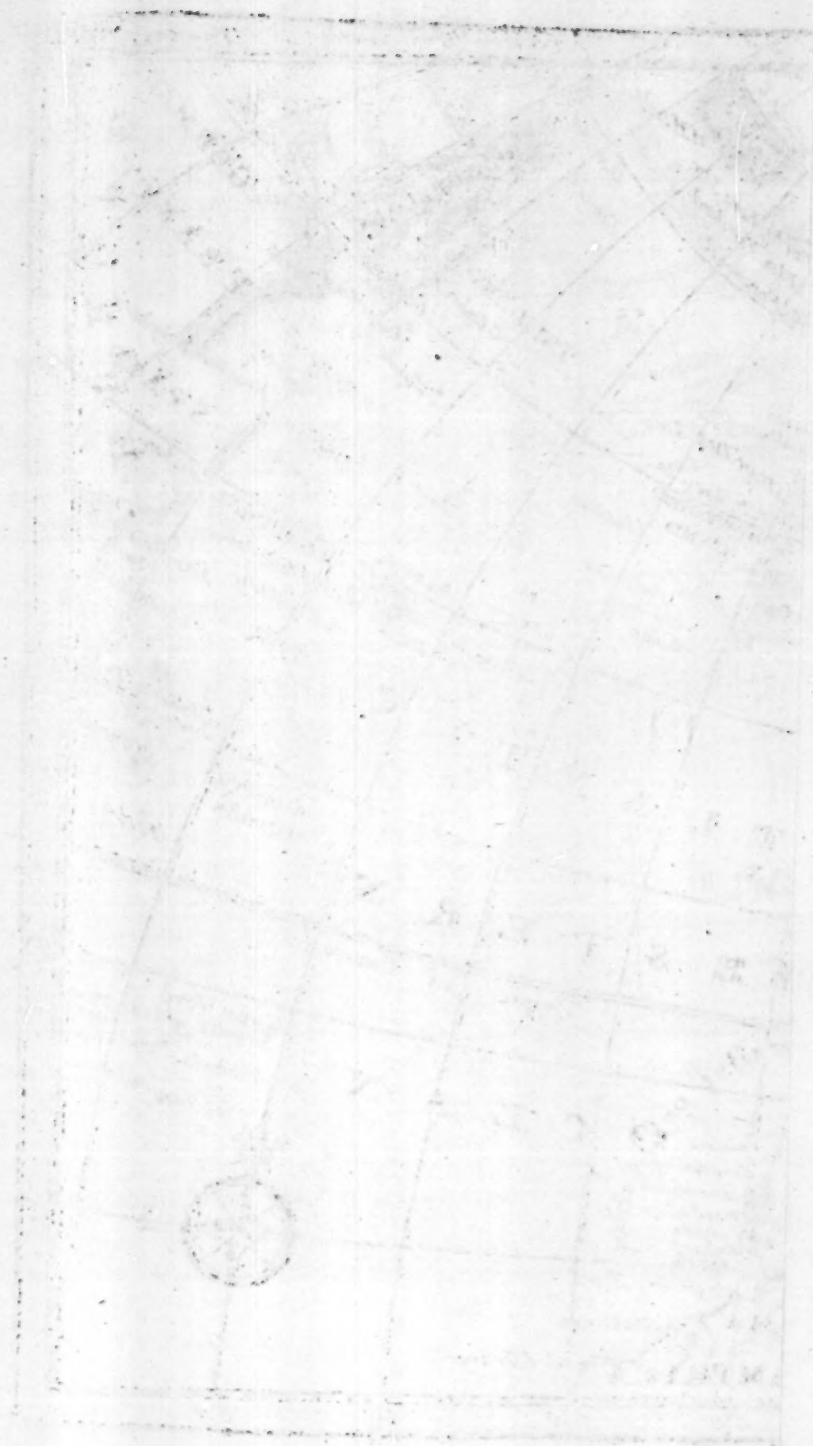
Algiers.

2. *Algiers*, the Capital of the Kingdom of *Algiers*, is situate on a fine Bay on the Coast of the *Mediterranean*, in 36 Degrees 40 Minutes North Latitude, and 3 Degrees 10 Minutes East Longitude.

Tunis.

3. *Tunis*, the Capital of the Kingdom of *Tunis*, is situate near a fine Lake, or rather a Bay of the *Mediterranean*, in 36 Degrees 30 Minutes North Latitude, and 10 Degrees East Longitude.

4. *Tripoli*,









4. *Tripoli*, the Capital of the Kingdom of *Tripoli*. *Tripoli*, is situate on the Coast of the *Mediterranean*, in 33 Degrees 30 Minutes North Latitude, and 14 Degrees 30 Minutes East Longitude.

The chief Rivers on the Coast of *Barbary* are the *Rivers*. *Mutvia*, the *Laffran*, the *Major*, the *Guadilbarbar*, and the *Megrida*. The Mountains of *Atlas* run from East to West on the South of *Barbary*.

## A M E R I C A.

S. **W**HAT is the Situation and Extent of *America*?

M. *America*, the Western Continent, usually *America*. styled the New World, on account of the late Discovery of it to the Inhabitants of the Eastern Continent, is situate between 35 and 145 Degrees of Western Longitude, and between 80 Degrees North and 58 Degrees of Southern Latitude, and consequently is 138 Degrees in Length from North to South, which, reckoning 60 Miles to a Degree, makes 8280 Geographical Miles, or 9000 *English* Miles and upwards; but the Breadth is very unequal; for at the Isthmus which joins *North* and *South America* it is not 100 Miles over, and in other Parts both of *North* and *South America* it is 3000 Miles wide; being bounded by Lands or Seas near the North Pole on the North; by the *Atlantic Ocean*, which separates it from the Eastern Continent, on the East; by another boundless Ocean on the South, and by the *Pacific Ocean*, usually called the *South-Sea*, which separates it from *China* and the *East-Indies*, on the West.

S. What Countries are comprehended in this Quarter of the World?

M. *America* is usually divided into North and South; the North extends from *Porto Bello* on the Isthmus of *Darien*, in 10 Degrees North Latitude, as far North as our Discoveries extend that Way, and perhaps to the North Pole. *South America* extends from *Porto-Bello* and the North Coast of *Terra Firma* to 58 or rather  $57\frac{1}{2}$  Degrees of South Latitude.

S. What Countries are comprehended in North *America*?

M. 1. *Old Mexico*, 2. *New Mexico*, both subject North *America* to Spain; 3. *Florida* and *Canada*, which the *Span-*



*Spaniards, English, and French*, all lay Claim to, and have possessed themselves of several Portions of these Territories. The *Spaniards* particularly claim the South-East Promontory, of which *St. Augustin* is the Capital, and the Western Part of *Florida* and *Canada*, both which they are possessed of. The *English* lay claim to great Part of *Florida* and *Canada*, and are actually possessed of the East Coast of *North America*, which formerly went under the Name of *Florida*, for near two thousand Miles, and of great Part of *Canada* contiguous to *Hudson's-Bay*.

The *French* lay Claim to great Part of *Canada* and *Florida*, to which they have given the Names of *New France* and *Louisiana*, which lie between the *British* Plantations on the East, and the *Spanish* Territories on the West, and have actually possessed themselves of many Places on the Banks of the two great Rivers of *Mississippi* and *St. Lawrence*; but great Part of the inland Country is still possessed by the *Indians*, who are not subject to any of the Powers abovesaid.

There are also several large Islands in *North America*, subject to the same Powers that possess the Continent, which will be enumerated hereafter.

S. What Countries are contained in *South America*?

*South America.*

M. 1. *Terra Firma*. 2. *Peru*. 3. *Chili*. 4. *Amazonia*. 5. *Laplata*, or *Paraguay*, all which are subject to *Spain*; and they lay Claim to, 6. *Patagonia*, the most Southern Division of *South America*, but neither the *Spaniards* nor any other *European* Power have any Settlements here; but the Natives still enjoy their Freedom, as they do in many more of the inland Parts of this Division. 7. *Brasil*, subject to *Portugal*. 8. *Caen*, or *Equinoctial France*, subject to the *French*. And, 9. *Surinam*, subject to the *Dutch*.

S. What is the Situation and Extent of *Old Mexico*?

*Mexico.*

M. *Old Mexico* is situate between 9 and 30 Degrees of North Latitude, and between 8 and 115 Degrees of West Longitude, being upwards of 2000 Miles in Length from the North-West to the South-East, and from 60 Miles to 1000 in Breadth, bounded by *New Mexico* and the North Sea on the North and North-East, by *Terra Firma* on the East, and by the *Pacific Ocean* on the South-West: Containing the Provinces of 1. *New Leon*. 2. *Pannio*. 3. *New Galicia*. 4. *Mexico Proper*. 5. *Cinaloa*. 6. *Culi-*









# G E O G R A P

*Culiacan.* 7. *Xalisco.* 8. *Mechoacan.*  
10. *Tabasco.* 11. *Yucatan.* 12. *G*  
*Honduras.* 14. *Nicaragua.* 15.  
*Veragua.* And, 17. *Chiapa.*

S. What are the chief Towns in

M. 1. *Mexico.* 2. *Vera Cruz.*  
4. *Campeachy.* 5. *Granada.* And,

1. *Mexico*, the Capital of the Pro  
*ico Proper*, and of all the *Spanish*  
*North America*, is situate in the Mic  
in 20 Degrees North Latitude, and  
of West Longitude.

2. *Vera Cruz*, a Port-Town in t  
*Flascula*, in the Gulph of *Mexico*, sit  
grees 30 Minutes North Latitude,  
grees West Longitude.

3. *Acapulco*, a Port-Town of th  
*Mechoacan*, situate on a fine Bay of  
in 17 Degrees 30 Minutes North  
102 Degrees of West Longitude.

4. *Campeachy*, a Port-Town of t  
*Yucatan*, situate in 19 Degrees of N  
and 93 Degrees of West Longitude

5. *Granada*, a Town in the Pro  
*ragua*, situate on the Lake of *Nicara*  
grees North Latitude, and 89 De  
Longitude.

6. *Amapalla*, a Port-Town of t  
*Guatimalla*, situate on a Bay of the  
in 12 Degrees 30 Minutes North  
93 Degrees of West Longitude.

The Province of *New Mexico* is f  
27 and 40 Degrees of North Latitud  
100 and 125 Degrees of West Lon  
chief Town *St. Fe*, situate on the  
in 36 Degrees of North Latitude,  
grees of West Longitude.

S. What is the Situation and E  
*Firma*, and what Provinces are comp

M. *Terra Firma* is situate betwe  
and 12 Degrees of North Latitude, a  
and 83 Degrees of West Longitude  
ed by the North Sea and Part of the  
on the North; by the River *Orono*  
parates it from *Guiana* or *Caribiana*

in. 9. *Flascale*,  
*Guatimalla*. 13.  
*Costarica*. 16.

in *Old Mexico*?

3. *Acapulco*. Towns.  
 6. *Amapalla*.  
 Province of *Mex*- *Mexico City*.  
 Territories in  
 middle of a Lake,  
 and 104 Degrees

the Province of *Vera Cruz*.  
 situate in 18 De-  
 e, and 100 De-

the Province of *Acapulco*.  
 of the *South Sea*,  
 h Latitude, and

the Province of *Campeachy*.  
 North Latitude,  
 de.

Province of *Nica- Granada*.  
*ragua*, in 11 De-  
 Degrees of West

the Province of *Amapalla*.  
 the *Pacific Ocean*,  
 h Latitude, and

s situate between *New Mexico*.  
 ude, and between  
 ongitude. The  
 he North River, *St. Fe*.  
 le, and 109 De-

Extent of *Terra Situation*.  
 prehended in it?  
 veen the Equator *Terra Firma*.  
 , and between 62  
 de, being bound-  
 the *Atlantic Ocean*  
 onoque, which se-  
 una, on the East;

3. by



- by *Peru* and the Country of the *Amazons* on the South, and by *Veragua*, a Province of *Mexico*, and the *Pacific Ocean*, on the West; comprehending,
- Provinces.* 1. The Province of *Terra Firma Proper*, or *Darien*; 2. *Carthagena*; 3. *St. Martha*; 4. *Rio de la Hacha*, and the *Caracaos Coast*; 5. *Venezuela*; 6. *Comana*; 7. *New Andalusia*; 8. *New Granada*; and, 9. The Province of *Popayan*.
- Towns.* S. What are the chief Towns in *Terra Firma*?
- Panama.* M. 1. *Panama*, the Capital of *Terra Firma Proper*, situate on a fine Bay of the *Pacific Ocean*, in 9 Degrees of North Latitude, and 82 Degrees of West Longitude.
- Porto Bello.* 2. *Porto-Bello*, situate in the Province of *Darien*, or *Terra Firma Proper*, on a Bay of the North Sea, in 10 Degrees North Latitude, and 83 Degrees of West Longitude.
- Carthagena.* 3. *Carthagena*, the Capital of the Province of *Carthagena*, situate on a Peninsula near the North Sea, in 77 Degrees of West Longitude, and 11 Degrees of North Latitude.
- St. Martha.* 4. *St. Martha*, a Port-Town, the Capital of the Province of *St. Martha*, situate on the Coast of the North Sea, in 11 Degrees 45 Minutes North Latitude, and 74 Degrees 30 Minutes West Longitude.
- Maracaibo.* 5. *Maracaibo*, situate in the Province of *Venezuela*, on the Lake *Maracaibo*, in 10 Degrees 45 Minutes North Latitude, and 70 Degrees West Longitude.
- PortoCarvalho.* 6. *Porto Cabela*, or *Cavalla*, a Port-Town on the *Caracaos Coast*, situate in 11 Degrees North Latitude, and 67 Degrees 30 Minutes West Longit.
- Laguaira.* 7. *Laguaira*, a Port-Town on the *Caracaos Coast*, in 11 Degrees North Latitude, and 66 Degrees 20 Minutes West Longitude.
- St. Fe.* 8. *St. Fe de Bagota*, the Capital of *Granada*, situate in 4 Degrees North Latitude, and 73 Degrees West Longitude.
- Rivers.* The chief Rivers in *Terra Firma* are those of the River *Granda*, *Magdalena*, and *Oronoco*; and in this Province begin that Chain of Mountains called the *Andes*, or *Cordelera*, which run through the Middle of *South America* from North to South: The Mountains which run along the Province of *Darien*,
- Mountains.*

rien, or *Terra Firma Proper*, also between the North and South Sea, are exceeding high and steep.

S. What is the Situation and Extent of *Peru*?

M. *Peru* is situate in *South America*, between *Peru*. the Equator and 25 Degrees of South Latitude, and between 60 and 82 Degrees of West Longitude, being upwards of 1500 Miles in Length, and about 600 in Breadth, and comprehending the three great Provinces or Audiences of *Quitto*, *Lima*, and *Provinces. Los Charcas*.

The chief Towns, *Lima*, *Cusco*, *Quitto*, *Potosi*, *Towns. Arica*, and *Payta*.

1. *Lima*, the Capital of *Peru*, is situate on the *Lima*. Banks of the River *Lima*, 6 Miles East of the *Pacific Ocean*, in 12 Degrees of South Latitude, and 76 Degrees of West Longitude.

2. *Cusco*, the Capital of *Peru* during the Reigns *Cusco*. of the *Indian* Emperors, is situate in 13 Degrees of South Latitude, and 70 Degrees of West Longitude.

3. *Quitto*, the Capital of the Province of *Quitto*, *Quitto*. is situate in 30 Minutes of South Latitude, and 78 Degrees of West Longitude.

4. *Potosi*, situate in the Province of *Los Charcas*, *Potosi*. in 22 Degrees of South Latitude, and 67 Degrees of West Longitude.

5. *Arica*, a Port-Town of the Province of *Los Arica. Charcas*, situate on the Coast of the *Pacific Ocean*, in 18 Degrees 20 Minutes South Latitude, and 70 Degrees 20 Minutes West Longitude.

6. *Payta*, a Port-Town of the Province of *Payta. Quitto*, situate on the Coast of the *Pacific Ocean*, in 5 Degrees South Latitude, and 80 Degrees of West Longitude.

S. What is the Situation and Extent of the Province of *Chili*?

M. *Chili* is situate between 25 and 45 Degrees *Chili*. of South Latitude, and between 75 and 85 Degrees of West Longitude, bounded by *Peru* on the North, by *La Plata* on the East, by *Patagonia* on the South, and by the *Pacific Ocean* on the West, being 1200 Miles in Length, but scarce 200 in Breadth. The chief Towns are, *St. Jago*, *Co-Towns. quimbo*, *Baldivia*, and *Imperial*.

*St. Jago.*

1. *St. Jago*, the Capital of the Province, situate 6 Miles West of the Mountains of *Andes*, in 34 Degrees of South Latitude, and 77 Degrees of West Longitude.

*Coquimbo.*

2. *Coquimbo*, a Port-Town, situate on the *Pacific Ocean*, at the Mouth of the River *Coquimbo*, in 30 Degrees South Latitude, and 75 Degrees of West Longitude.

*Baldivia.*

3. *Baldivia*, a Port-Town, situate on a Bay of the *Pacific Ocean*, in 40 Degrees South Latitude, and 80 Degrees of West Longitude.

*Imperial.*

4. *Imperial*, a Port-Town, situate on an Island formed by two Rivers, 9 Miles East of the *Pacific Ocean*, in 39 Degrees of South Latitude, and 80 Degrees of West Longitude.

*Patagonia.*

The Province of *Patagonia*, the South Division of *South America*, extends from 36 Degrees to 57 Degrees 30 Minutes South Latitude, comprehending the Island *Del Fogo*: But here are no Towns or Settlements of *Europeans*; the *Indians* still possess this Country, though the *Spaniards* pretend to be Sovereigns of it.

S. What is the Situation and Extent of the Province of *La Plata*, or *Paraguay*?

*La Plata.*

M. *La Plata*, or *Paraguay*, is situate between 12 and 36 Degrees of South Latitude, and between 50 and 75 Degrees of West Longitude, being bounded by the Country of the *Amazons* on the North, by *Brasil* on the East, by *Patagonia* on the South, and by *Peru* and *Chili* on the West, being upwards of 1500 Miles in Length from North to South, and almost as much in Breadth; and contains the Countries of *La Plata Proper*, *Paraguay*, *Tucuman*, *Guayra*, *Parana*, and *Uragua*. The chief Towns, *La Plata*, *Buenos Ayres*, *St. Jago*, and *Assumption*.

*Provinces.**Towns.**La Plata.*

1. *La Plata*, the Capital of the Province of *La Plata*, so named from the vast Quantities of Silver dug out of the neighbouring Mines, is situate in 22 Degrees 30 Minutes South Latitude, and 66 Degrees 30 Minutes West Longitude.

*Buenos Ayres.*

2. *Buenos Ayres*, situate near the Mouth of the River *Plata*, 50 Leagues West of the *Atlantic Ocean*, in 36 Degrees of South Latitude, and 60 Degrees of West Longitude.

3. *St.*

3. *St. Jago*, situate in 28 Degrees 40 Minutes South Latitude, and 67 Degrees West Longitude. *St. Jago.*

4. *Assumption*, situate near the Confluence of the Rivers *La Plata* and *Uragua*, in 34 Degrees 20 Minutes South Latitude, and 60 Degrees of West Longitude. *Assumption.*

5. What are the chief Rivers and Mountains in the Province of *La Plata* or *Paraguay*?

*M.* The Rivers are, *La Plata*, *Paraguay*, and *Uragua*. The chief Mountains are those of the *Andes*, esteemed the highest in the World, which separate *La Plata* from *Peru* and *Chili* on the West, and another Chain of Mountains which divide *La Plata* from *Brazil* on the East. *Rivers. Mountains.*

*Amazonia* is situate in *South America*, between the Equator and 10 Degrees of South Latitude, and between 58 and 80 Degrees of West Longitude. In this Country the *Spaniards* have no considerable Town, and very few Colonies. The River *Amazon*, which runs through it from West to East, is one of the largest Rivers in the World, and annually overflows its Banks, like the *Nile*, when the Sun is vertical. *Amazonia.*

These are all the Dominions on the Continent of *America*, subject to the Crown of *Spain*. There are also a great Number of Islands in the *American* Seas subject to that Crown, of which *Cuba*, *Hispaniola*, *Porto Rico*, *Trinity*, and *Margaretta* are the chief. *Spanish Islands.*

1. *Cuba*, situate in the *Atlantic* or *American* Ocean, East of the Gulph of *Mexico*, between 20 and 23 Degrees of North Latitude, and 74 and 87 Degrees of Western Longitude, 12 Miles South of the Continent of *Florida*, being about 800 Miles in Length from East to West, and generally between 70 and 80 Miles broad. The chief Towns *St. Jago* and the *Havanna*. *Cuba. Situation. Towns.*

1. *St. Jago*, the Capital of the Island, situate on a Bay of difficult Access, on the South East of the Island, in 20 Degrees of North Latitude, and 76 Degrees 30 Minutes West Longitude. *St. Jago.*

2. *Havanna*, the most considerable Port-Town in the Island, where the Galleons rendezvous on their Return to *Europe*; a very secure Harbour, well defended by Forts and Batteries, and the Ac-



cess to it exceeding difficult, situate in 23 Degrees of North Latitude, and 82 Degrees 30 Minutes West Longitude.

*Hispaniola.*

2. *Hispaniola*, situate in the *Atlantic* or *American* Ocean, about 300 Miles North of the Continent of *Terra Firma*, and 50 Miles East of the Island of *Cuba*, between 18 and 20 Degrees of North Latitude, and between 67 and 74 Degrees of West Longitude, being about 420 Miles in Length from East to West, and 120 broad; but the North-West Part of this Island is in the Possession of the *French*. The chief Town of the *Spanish* Territories is,

*Towns.*

*St. Domingo.*

1. *St. Domingo*, the Capital of the Island of *Hispaniola*, situate on a fine Harbour on the South Coast of the Island, of difficult Access, and well defended by Forts, lying in 18 Degrees 20 Minutes North Latitude, and 70 Degrees of West Longitude. This City was built by *Columbus*, the celebrated Discoverer of *America*, and named *Domingo* in Memory of his Father *Dominic*; and the whole Island for many Years was called *St. Domingo*.

*Petit Guaves.*

2. *Petit Guaves*, the Capital of the *French* Settlements on this Island, is a Port-Town situate on a fine Bay at the West End of the Island, in 18 Degrees 5 Minutes North Latitude, and 76 Degrees of West Longitude.

*Porto Rico.*

3. *Porto Rico*, situate in the *Atlantic* Ocean, in 18 Degrees of North Latitude, and between 64 and 68 Degrees of West Longitude, 60 Miles East of *Hispaniola*, being 120 Miles long, and 60 broad. The chief Town, *St. John de Porto Rico*, is situate on the North Side of the Island, in 18 Degrees of North Latitude, and 65 Degrees of West Longitude. The Access to it very difficult, and defended by strong Forts.

*Trinidad.*

4. The Island of *Trinidad*, or *Trinity*, situate on the *American* Ocean, near the Coast of *New Andalusia* in *Terra Firma*, about 80 Miles North of the River *Oronoco*, being about 90 Miles long, and 60 broad. The chief Town, *St. Joseph*.

*Margaretta.*

5. The Island of *Margaretta*, situate in the *American* Ocean, 60 Miles North of *New Andalusia* in *Terra Firma*, in 64 Degrees of West Longitude,

gitude, and 11 Degrees 30 Minutes North Latitude, being 50 Miles long, and 24 broad.

There are also the *Pearl Islands* in the Bay of *Pearl Islands*. *Panama*, and a Multitude of other small Islands both in the North and South Sea, which are subject to *Spain*.

S. What is the Situation and Extent of *Brasil*?

*M. Brasil*, the only Country of *America* subject to the Crown of *Portugal*, is situate between the Equator and 35 Degrees of South Latitude, and between 35 and 60 Degrees of West Longitude, bounded by the *Atlantic Ocean* and the River *Amazon* on the North, by the *Atlantic Ocean* also on the East, by the River *Plate* on the South, and by the *Spanish* Province of *Paraguay* and the Country of the *Amazons* on the West, being upwards of 2500 Miles in Length from North to South, and from 100 to 500 broad; and containing the following Provinces or Captainships, viz. *Provinces*. *Paria*, *Marignan*, *Siara*, *Paraiba*, *Tamara*, *Per-nambuco*, *Bahia*, *Ilheos*, *Segura*, *Spirito Sancto*, *Rio de Janeiro*, *St. Vincent*, and that of *Del Rey*: The *Towns*. chief Towns being *St. Salvador*, *St. Sebastian*, *Spirito Sancto*, and *St. Vincent*.

1. *St. Salvador*, the Capital of the Captainship *St. Salvador*. of *Bahia* and of the whole Territory of *Brasil*, is situate on a capacious Bay of the *Atlantic Ocean*, called *Bahia de todos Sanctos*, or *The Bay of All-Saints*, in 12 Degrees South Latitude, and 40 Degrees of West Longitude.

2. *St. Sebastian*, situate in the Province of *Rio St. Sebastian*. *de Janeiro*, on the *Atlantic Ocean*, at the Mouth of the River *Janeiro*, in 23 Degrees 30 Minutes South Latitude, and 42 Degrees of West Longitude.

3. *Spirito Sancto*, in the Province of *Spirito Sancto*. *Sancto*, situate on the Coast of the *Atlantic Ocean*, in 20 Degrees of South Latitude, and 41 Degrees 30 Minutes West Longitude.

4. *St. Vincent*, the Capital of the Province of *St. Vincent*. *St. Vincent*, situate in 24 Degrees South Latitude, and 47 Degrees 20 Minutes West Longitude.

The chief Rivers in *Brasil* are those of *La Plata*, *Rivers*. the *Amazons*, and *Rio Janeiro*.

S. Please

S. Please to describe the Situation and Extent of the *British Colonies and Plantations in America*, and enumerate the several Provinces \*.

*British Colonies.*

M. The *British Colonies* which are contiguous, lie on the Eastern Coast of *North America*, which on the first Discovery, was denominated *Florida*, and run or trend (according to the Sea Term) from the South-West, in 30 Degrees North Latitude, to the North East, in 50 Degrees of North Latitude, being about 1500 Miles in Length, and from 100 to 300 Miles in Breadth. There is a Part of *Canada* also contiguous to *Hudson's Bay*, subject to *Great Britain*, and planted by *British Colonies*; and the Continent of *Eskimaux*, sometimes called the *Terra Labrador* and *New Britain*, was acknowledged to be the Property of the *British Crown* by the *French*, at the Treaty of *Utrecht*, Anno 1713; but neither the *English* or any other Nation have yet planted any Colonies here.

*Provinces.*

The Countries already planted, to begin at the South-West, are, 1. *Georgia*. 2. *South Carolina*. 3. *North Carolina*. 4. *Virginia*. 5. *Maryland*. 6. *Pennsylvania*. 7. The two *Jerseys*. 8. *New York*. 9. *New England*, in which I include *Rhode Island*, *Connecticut*, and *New Hampshire*; though these are distinct Governments from the *Massachusetts Colony*, which is properly *New England*. 10. *New Scotland* or *Acadie*. And, 11. The *British Colonies and Settlements on Hudson's Bay*.

S. Which are the principal Islands subject to the Crown of *Great Britain* in *America*?

*British American Islands.*

M. 1. *Newfoundland*. 2. *Cape Breton*. 3. *Jamaica*. 4. *Barbadoes*. 5. *St. Christopher's*. 6. *Antigua*. 7. *Nevis*. 8. *Montserrat*. 9. *Barbadoes*. And, 10. *Dominica*. 11. The *Bermuda* or *Summer Islands*. 12. *Providence*, and some of the neighbouring *Bahama Islands*. 13. The Island of *Ruatan* in the Gulph of *Honduras*, lately possessed and fortified by *Great Britain*: All which are actually planted: They lay claim also to the Islands of *St. Lucia* and *St. Vincent*, and that of *Tobago*; but these are not planted yet.

\* The *British Colonies* (and also the *French* and *Spanish*) are here described, in regard to the Property of them, as they stood near the Close of the late War.

S. Which

S. Which are the chief Towns in the *British* Plantations on the Continent.

M. 1. *Frederica*. 2. *Charlestown*. 3. *Williams-Towns*.  
burg. 4. *Annapolis* in *Maryland*. 5. *Philadel-*  
*phia*. 6. *Burlington*. 7. *New York*. 8. *Newport*.  
9. *Boston*. 10. *Annapolis* in *Acadie*. And, 11. *Nel-*  
*son Fort*.

1. *Frederica*, situate on the Island of *St. Simons* *Frederica*.  
in the Mouth of the River *Alatamba*, in 31 Degrees  
of North Latitude, and 81 Degrees 30 Minutes  
West Longitude; 60 Miles North of the *Spanish*  
Town of *St. Augustin*.

2. *Charlestown*, Capital of both *Carolina's*, situate *Charlestown*,  
on a Peninsula, formed by *Ashley* and *Cowper* Rivers  
on the Coast of the *Atlantic Ocean*, in 32 Degrees  
30 Minutes North Latitude, and 79 Degrees of  
West Longitude.

3. *Williamsburg*, Capital of *Virginia*, situate in *Williams-*  
*James County* between *James River* and *York Ri-* burg.  
ver, in 37 Degrees 20 Minutes North Latitude,  
and 76 Degrees 30 Minutes West Longitude.

4. *Annapolis*, Capital of *Maryland*, situate in *Annapolis*  
39 Degrees 25 Minutes North Latitude, and 78  
Degrees of West Longitude.

5. *Philadelphia*, Capital of *Pennsylvania*, situate *Philadelphia*.  
on the Rivers *Delawar* and *Schoolkill*, in 40 De-  
grees 30 Minutes North Latitude, and 74 Degrees  
of West Longitude.

6. *Burlington*, Capital of the *Ferseys*, situate on *Burlington*.  
the River *Delawar*, in 40 Degrees 40 Minutes  
North Latitude, and 74 Degrees of West Longi-  
tude.

7. *New York*, Capital of the Colony of *New* *New York*.  
*York*, situate on an Island in the Mouth of *Hud-*  
*son's River*, in 41 Degrees North Latitude, and  
72 Degrees 30 Minutes West Longitude.

8. *Newport*, Capital of *Rhode Island* and *Provi-* *Newport*.  
*dence Plantation*, situate in 41 Degrees 25 Minutes  
North Latitude, and 70 Degrees 30 Minutes  
West Longitude.

9. *Boston*, Capital of *New England*, situate on a *Boston*.  
spacious Bay of the *Atlantic Ocean*, defended by  
Forts and Platforms of Guns on the little Islands  
which lie at the Entrance of the Harbour,  
situate in 42 Degrees 24 Minutes North Lati-

tude,



tude, and 70 Degrees 20 Minutes West Longitude.

*Annapolis.*

10. *Annapolis*, Capital of *New Scotland* or *Acadia*, having a fine Harbour well defended by a strong Fort, and situate in 45 Degrees of North Latitude, and 64 Degrees of West Longitude.

*Nelson Fort.*

11. *Nelson Fort*, situate in *Canada* on the Coast of *Hudson's Bay*, in 57 Degrees of North Latitude, and 91 Degrees of West Longitude.

8. What are the chief Towns in the *British American Islands*?

Towns in the  
*British American Islands.*

M. 1. *Placentia*; 2. *St. John's* in *Newfoundland*; 3. *Louisbourg* in *Cape Breton*; 4. *St. Jago de la Vega*, or *Spanish Town*; 5. *Port-Royal*, and; 6. *Kingston* in *Jamaica*; 7. *Bridge-Town* in *Barbadoes*; 8. *Basseterre*, and, 9. *Charles Fort* in *St. Christopher's*; and, 10. *St. John's* in *Antigua*.

*Placentia.*

1. *Placentia*, situate on a fine Bay at the South End of the Island of *Newfoundland*, in 48 Degrees of North Latitude, and 56 Degrees of Western Longitude.

*St. John's.*

2. *St. John's*, a Port-Town of *Newfoundland*, situate on the South-East Part of the Island, in 48 Degrees North-Latitude, and 55 Degrees of West Longitude.

*Louisbourg.*

3. *Louisbourg*, Capital of the Island of *Cape Breton*, a Port-Town, situate at the South End of the Island, in 45 Degrees 40 Minutes North Latitude, and 61 Degrees of West Longitude.

*St. Jago.*

4. *St. Jago de la Vega*, or *Spanish Town*, Capital of the Island of *Jamaica*, situate in 18 Degrees 20 Minutes North Latitude, and 76 Degrees 30 Minutes West Longitude.

*Port-Royal.*

5. *Port-Royal*, a most secure and capacious Harbour and Fortrefs in *Jamaica*, the usual Rendezvous of the *English Fleet* in the *American Seas*, situate in the South-East Part of the Island, about 12 Miles South of *St. Jago*.

*Kingston.*

6. *Kingston*, situate on the North Side of the Harbour of *Port-Royal* in *Jamaica*, most frequented by the Merchants of any Place in the Island.

*Bridge-Town.*

7. *Bridge-Town*, Capital of the Island of *Barbadoes*, situate on a fine Bay in the South Part of the

the Island, in 13 Degrees North Latitude, and 59 Degrees of West Longitude.

8. *Basseterre*, a Port-Town and Fort on the *Basseterre*.  
Island of *St. Christophers*, situate on the South  
Side of the Island, in 17 Degrees 30 Minutes  
North Latitude, and 62 Degrees of West Lon-  
gitude.

9. *Charles Fort*, a Port-Town in *St. Christo- Charles Fort*.  
*pher's*, situate on the South Side of the Island,  
7 Miles West of *Basseterre*.

10. *St. John's*, the chief Town of the Island *St. John's*.  
of *Antigua*, situate on a capacious Harbour in the  
North-West Part of the Island, in 17 Degrees  
30 Minutes North Latitude, and 62 Degrees of  
West Longitude.

S. What are the Countries claimed by the *French Colo-*  
*French* on the Continent of *America*? *nies, Canada*

*M. 1.* The greatest Part of *Canada* and *Florida, and Florida*.  
situate between the Gulph of *Mexico* and *Hudson's*  
*Bay* in *North America*; but they are possessed only  
of some Settlements on the Rivers *St. Lawrence*  
and *Mississippi*.

2. The Island of *Caen* and Part of the Conti- *Caen*,  
nent opposite to it in *South America*, usually called  
*Equinoctial France*, lying between the Equator and  
5 Degrees of North Latitude.

*Quebec*, the chief Town of the *French Planta- Quebec Town*.  
tions in *North America*, is situate on the River *St.*  
*Lawrence*, in 47 Degrees 35 Minutes North Lati-  
tude, and 74 Degrees of West Longitude.

*Caen*, the Capital of the *French Settlements in Caen Town*.  
*South America*, is situate on a small Island of the  
same Name, and on the Continent of *South Ame-*  
*rica*, in 45 Degrees North Latitude, and 52 De-  
grees of West Longitude.

S. What are the chief *American* Islands belong-  
ing to *France*?

*M. 1.* *Martinico*, situate in 14 Degrees of *French Ame-*  
North Latitude, and 61 Degrees of West Longi- *rican Islands.*  
tude. *Martinico*.

2. *Guadaloupe*, situate in 16 Degrees 30 Mi- *Guadaloupe*.  
nutes North Latitude, and 61 Degrees of West  
Longitude.

*Hispaniola.*

3. *Hispaniola*, of which they possess the North-West Part; the chief Town *Petitguaves*, described already in treating of *Spanish America*.

S. What Countries are the *Dutch* possessed of in *America*?

*Dutch Colonies.*

*Surinam.*

*M. Surinam* is the only Colony the *Dutch* have upon the Continent, which is situate between 5 and 8 Degrees of North Latitude, and between 55 and 60 Degrees of West Longitude, having the *Atlantic Ocean* upon the North and East, and the *French Colony of Caen* on the South. The chief Town,

*Surinam Town.*

*Surinam*, situate in 7 Degrees North Latitude, and 55 Degrees 30 Minutes West Longitude.

*Dutch Islands.*

*Curassaw,*  
*&c.*

The *Dutch* are also possessed of *Curassaw*, *Aruba*, and *Bonaire*, near the Coast of *Terra Firma*, and of *Saba*, *Eustatia*, and some other small Islands of the *Caribees*. The *Danes* possess the little Island of *St. Thomas*, one of the *Caribees*.

*Danish Island.*

# The SOLAR SYSTEM with the Orbits of 5 remarkable COMETS.

In this Scheme the Orbits of the Planets are drawn according to their mean distances from the Sun. and the Planets themselves in the proportions they bear to each other.

Saturn



Jupiter



Saturn and his 5 Moons

This Comet appeared in 1661 and will



Jupiter and his 4 Moons

This Comet appeared 1590 within 40,000

eriod not yet known







# ASTRONOMY.

## *Of the SOLAR SYSTEM according to COPERNICUS.*

S. **A**T the Beginning of this Discourse you promised to give me some Idea of Astronomy, which I should now attend to with great Pleasure.

M. As to the Science of Astronomy in all its Parts, though it is both pleasant and useful, it may perhaps be too intricate and laborious for you to enter upon at present. I will therefore content myself with endeavouring to give you a general Notion of the *Copernican* System, without entering at all into the abstruse Parts of the Science.

The Earth we live on has been generally thought to be the Center of the Universe, and to be fixt and immoveable. *Pythagoras* indeed, among the Ancients, taught the contrary; but his Opinion, for want of being thoroughly canvassed by learned and ingenious Men, grew into Disrepute, and was for many Centuries totally neglected. About 250 Years ago it was again revived by *Copernicus*, a Native of *Thorn* in *Prussia*; and is of late, by our great *Newton*, established on such clear and solid Principles, that it is now universally received.

This System is disposed in the following Manner. The Sun is placed in the Center, from whence it never moves; but, from some Observations made on its Spots, it is found

to turn round on its own Axis, from West to East, in about 25 Days. Round about him at unequal Distances six opaque spherical Bodies continually revolve: These are called the primary Planets. That which is nearest to the Sun is called *Mercury*; the next *Venus*; then our Earth; the next beyond is *Mars*; after him *Jupiter*; and the most distant of all is *Saturn*. *Saturn*, *Jupiter*, and *Mars*, are called superior Planets, because their Circuits are beyond the Earth's Orbit; *Mercury* and *Venus* are called inferior Planets, because their Circuits are within that Orbit.

Besides these, there are discovered in this System ten other Bodies, which move about some of these primary Planets in the same Manner as they move round the Sun. These are called secondary Planets. The most conspicuous of them is the Moon, which moves round our Earth; four move in like manner round *Jupiter*, and five round *Saturn*.

The same Planet is not always equally distant from the Sun; but if the Distance of the Earth from the Sun be divided into ten equal Parts, the mean Distance of *Saturn* from the Sun will be 95 such Parts, of *Jupiter* 52, of *Mars* 15, of *Venus* 7, and of *Mercury* 4. Now the Distance of the Earth from the Sun is found to be about 76 Millions of *English* Miles. If therefore you multiply one tenth Part of this Distance, which is about 7600000 Miles by 95, it will give you the Distance of *Saturn* from the Sun, in *English* Miles; if by 52, it will give you the Distance of *Jupiter*; if by 15, of *Mars*; if by 7, of *Venus*; and if by 4, of *Mercury*.

But from a round Calculation, the Distance of each Planet from the Sun in *English* Miles is about

|                |   |   |   |     |                         |
|----------------|---|---|---|-----|-------------------------|
| <i>Mercury</i> | — | — | — | 32  | } Millions<br>of Miles. |
| <i>Venus</i>   | — | — | — | 59  |                         |
| <i>Earth</i>   | — | — | — | 76  |                         |
| <i>Mars</i>    | — | — | — | 123 |                         |
| <i>Jupiter</i> | — | — | — | 424 |                         |
| <i>Saturn</i>  | — | — | — | 777 |                         |

The Distance of the Moon from the Earth is about 30 of the Earth's Diameters, or 240 thousand Miles. Its Proportion to the Earth in Magnitude is as 5 to 258; that is, it is more than 50 times less than the Earth. The Sun is about a Million of times bigger than the Earth.

The

The Diameters of the Sun, the Earth, and each of the Planets, in *English* Miles, are nearly as follows :

|                |   |   |   |         |          |
|----------------|---|---|---|---------|----------|
| <i>Saturn</i>  | — | — | — | 67,900  | } Miles. |
| <i>Jupiter</i> | — | — | — | 81,200  |          |
| <i>Mars</i>    | — | — | — | 4,444   |          |
| <i>Earth</i>   | — | — | — | 7,900   |          |
| <i>Moon</i>    | — | — | — | 2,175   |          |
| <i>Venus</i>   | — | — | — | 7,900   |          |
| <i>Mercury</i> | — | — | — | 2,460   |          |
| <i>Sun</i>     | — | — | — | 764,300 |          |

All these Planets, both primary and secondary, being opaque Bodies, and receiving all their Light from the Sun, as well as making their great Revolutions round him, are for these Reasons looked upon as Dependents on him, and make up all together what is called the Solar System.

All these Planets move one Way, from West to East; and of the primary Planets, the most remote is longest in finishing its Course round the Sun. The Period of *Saturn* falls short only 16 Days of 29 Years and a half. The Period of *Jupiter* is 12 Years wanting about 50 Days. The Period of *Mars* is within 43 Days of 2 Years. The Revolution of the Earth is one Year. The Period of *Venus* is performed in about 224 Days and an half, and of *Mercury* in about 88 Days.

Such of these Bodies as revolve round their own Axes perform that Revolution in the following Times. The Sun in something more than 25 Days. *Mars* in one Day and 40 Minutes. The Earth in 23 Hours 56 Minutes. And *Jupiter* in 10 Hours.

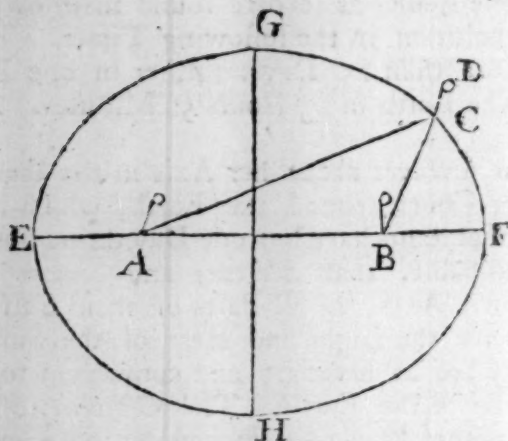
The Moon revolves about her Axis in the same time that she makes her Course round the Earth, which is a Month; so that her Inhabitants have but one Day throughout the Year. It is very probable, that *Mercury* and *Saturn* also revolve round their own Axes, as all Parts of their Surfaces cannot otherwise receive the Light and Heat of the Sun, which in all Probability are as necessary and convenient to them as we find them to be to the Earth. The Certainty of this Revolution in the other Planets is proved by the Appearance and Disappearance of certain Spots on their Surfaces, which, rising first on one Side or Edge of the Planet's Disk, move by degrees to the Middle, and so on till they reach the opposite Edge, where they set and disappear: And after they have been hid for about the same Space of Time that they were



visible, they again appear to rise in or near the same Place as they did at first. Now, by reason of *Mercury's* Nearness to the Sun, and of *Saturn's* great Distance from him, no Observations of this Kind have hitherto been made on them; and therefore their diurnal Motion, or Revolution round their own Axis, tho' probable, is not yet absolutely determined.

As the Ecliptic Line is the Orbit or annual Path of the Earth, so each Planet has its proper Orbit, whose Plane differs some few Degrees from the Plane of the Orbit of the Earth; and to a Spectator's Eye placed in the Center, would intersect or cut the Earth's Orbit at two opposite Points or *Nodes*. To represent this more plainly to your Imagination, suppose, says Dr. *Watts*, as many Hoops as there are Planets, thrust through with several strait Wires, and thereby joined in different Places to the Hoop that represents the Plane of the Ecliptic, *i. e.* the Earth's Orbit; and then let those Hoops be turned more or less obliquely from the Plane of the Ecliptic: For all the several Orbits or Paths of the Planets do not cross or intersect the Ecliptic in the same Point, nor at the same Angles; but their Nodes or Intersections of the Ecliptic are in different Parts of the Ecliptic, and also make different Angles with it.

Each of the primary Planets moves round the Sun in a Line which forms an Ellipsis, which I will here shew you how to describe.



Fix upon any Plane two Pins, as at A and B. To these tie a String ACB somewhat longer than their Distance from one

one another. Then apply a third Pin D in the Double of the Thread, so as to hold it strained; and in that manner carrying this Pin about, the Point of it will describe an Ellipsis. If through the Points AB the straight Line EABF be drawn, and terminated at the Points E and F, this is the longest Line that can be drawn within the Figure, and is called the greater Axis of the Ellipsis. The Line GH, drawn perpendicular to this Axis EF, so as to pass through the Middle of it, is called the lesser Axis. The two Points A and B are called Focuses. Now each primary Planet moves round the Sun in a Line of this Kind, the Place of the Sun being in one of the Focuses. Suppose A to be the Place of the Sun, then E is the Point wherein the Planet will be nearest to the Sun, and at F it will be the most remote. The Point E is called the Perihelion of the Planet, and F the Aphelion. In G and H the Planet is said to be in its Middle or mean Distance, because the Distance AG or AH is truly the Middle between AE the least, and AF the greatest Distance.

Of the six *primary Planets*, it hath not been observed that more than three are attended with *Secondaries, Moons, or Satellites*, viz. the *Earth, Jupiter, and Saturn*.

The Moon is a secondary Planet to the Earth, and performs her Revolution round it in somewhat less than 28 Days, at about thirty Diameters of the Earth's Distance from it; and in the Space of a Year is carried along with the Earth round the Sun.

\* *Jupiter* has four Satellites attending him. The first or innermost of which performs its Revolution in about 1 Day 18 $\frac{1}{2}$  Hours, at a Distance from the Center of that Planet equal to about 5 $\frac{1}{2}$  Semidiameters of *Jupiter's* Body. The next Satellite revolves round *Jupiter* in about 13 Days 13 $\frac{1}{2}$  Hours, at the Distance from *Jupiter* of about 9 of that Planet's Semidiameters. The third performs its Period nearly in 7 Days 3 $\frac{1}{2}$  Hours, at the Distance of about 14 $\frac{2}{3}$  Semidiameters. The fourth, which is the outermost, makes its Period in about 16 Days 16 $\frac{1}{2}$  Hours, at the Distance of about 25 $\frac{1}{3}$  Semidiameters.

*Saturn* has five Satellites attending him, which perform their Periods round him as follows. The innermost is distant about 4 $\frac{1}{2}$  of *Saturn's* Semidiameters, and revolves round him in about 1 Day 21 $\frac{2}{3}$  Hours. The next is distant about 5 $\frac{1}{2}$  Semidiameters, and makes its Period in 2 Days 17 $\frac{2}{3}$  Hours. The third is about 8 Semidiameters distant, and performs its Revolution in near 4 Days 11 $\frac{1}{2}$  Hours. The fourth is near 18 $\frac{2}{3}$  Semidiameters distant, and moves round *Saturn* in about

\* *Vide Pemberton's View of Newton's Philosophy.*

15 Days  $22\frac{2}{3}$  Hours. The outermost is removed to the Distance of 56 Semidiameters, and makes its Revolution in about 79 Days  $7\frac{1}{3}$  Hours. Besides these Satellites, there belongs to *Saturn* another Body of a very singular Kind. This is a shining, broad, and flat Ring, which encompasseth the Planet round about, without adhering in any Place to its Body. But what Laws this Ring is subject to, or what Uses it may serve, are yet unknown.

The Reason for taking such particular Notice of the Distance of the primary Planets from the Sun, and of the secondary Planets from their respective Primaries, is this; these several Distances are requisite to be known, in order to apprehend more clearly the Excellency of the *Copernican* System; according to which, the Motions of all the Planets, both Primary and Secondary, are regulated by one general Law, viz.

The Squares of the periodical Times of  
 the  $\left\{ \begin{array}{l} \text{Primary} \\ \text{Secondary} \end{array} \right\}$  Planets are one to another, as the Cubes  
 of their Distance from the  $\left\{ \begin{array}{l} \text{Sun,} \\ \text{Center of their Primary.} \end{array} \right\}$

Far beyond this Solar System are placed the fixed Stars, at such an immense Distance, that the best Telescopes represent them but as Points: They are called fixed Stars, because from all Ages they have not been observed to change their Situation. Hence, says Mr. *Wells*, it is usual to denote the *Place* of any of the intermediate Celestial Bodies, by assigning what Part of the Sphere of the fixed Stars they appear to us to be *in*, or more properly *under*. And accordingly it is usual to distinguish that Tract of the Sphere of the fixed Stars, under which all the Planets move, by the Asterisms or Constellations that lie in that Tract; which being fancied to represent several Things, are therefore called *Signs*; and because the Things represented by them are most of them \* *Zodia*, or Animals, hence all this Tract is stiled the *Zodiac*. Now the *Orbit*, wherein the Earth performs its annual Period (and which the Sun seems to move round every Year) runs under the very Middle of the *Zodiac*; whence this middle Part of the *Zodiac* is of special Note in Astronomy, and is therefore distinguished by a peculiar Name, being called the *Ecliptic*. This, as well as the whole *Zodiac*, is divided into twelve Parts, distinguished by the *Constellation* or *Sign* to which each Part was formerly assigned. The Names and Characters of the said Signs are as follows.

\* A Greek Word, signifying living Creatures.

|                 |                     |                     |                  |                |               |               |
|-----------------|---------------------|---------------------|------------------|----------------|---------------|---------------|
| <i>Aries.</i>   | <i>Taurus.</i>      | <i>Gemini.</i>      | <i>Cancer.</i>   | <i>Leo.</i>    | <i>Virgo.</i> | <i>Libra.</i> |
| ♈               | ♉                   | ♊                   | ♋                | ♌              | ♍             | ♎             |
| <i>Scorpio.</i> | <i>Sagittarius.</i> | <i>Capricornus.</i> | <i>Aquarius.</i> | <i>Pisces.</i> |               |               |
| ♏               | ♐                   | ♑                   | ♒                | ♓              |               |               |

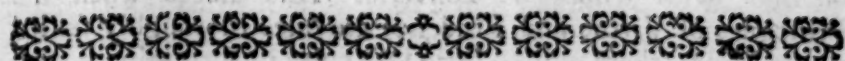
From the Observations of those who have endeavoured to find the Parallax of the Earth's Orbit, it may be demonstrated, that the nearest of the fixed Stars are at least 100,000 Times farther from us than we are from the Sun. Nay, so inconceivable is the Space betwixt us and them, that Astronomers have computed the Distance of *Sirius*, or the Dog-Star, which is thought the nearest, to be no less than 2,200000,000000 Miles, *i. e.* two Billions and two hundred thousand Millions of Miles. So that a Cannon-Ball, in its swiftest Motion, would be above six hundred thousand Years in travelling to it.

If a Spectator was placed as near to any fixed Star as we are to the Sun, that Star would in all Probability appear to him as big as the Sun appears to us; and our Sun would seem no bigger than a fixed Star. Since the Sun therefore differeth nothing from a fixed Star, why may not the fixed Stars be reckoned as so many Suns, and every Star be supposed the Center to a System of inhabited Planets and Worlds like ours? For who can conceive that all those noble and majestic Globes were only intended as Lights or Ornaments to this diminutive Ball which we inhabit?

But these grand Objects! these amazing Systems! their Numbers, Motions, Magnitudes! are much too vast and too sublime for the Capacity of the human Mind to form an adequate Conception of them. Yet let me hope that you will so contemplate them, as to raise and kindle in your Heart Love, Praise, and Adoration to the Supreme Creator.







P A R T IV.  
C H R O N O L O G Y  
A N D  
H I S T O R Y.

*Governor. Pupil.*

G. **H**ITHERTO, my young Pupil, I have confined myself to such Instructions as may be stiled Preliminary, and were intended to prepare you for Studies of a higher Nature. It now remains that I enter upon the more important Part of my Task; to principle your Mind with sound Knowledge, to form you to Wisdom and Virtue, and guide you thro' the Paths of Learning and the Sciences. May I flatter myself with the same ready Attention here, the same Desire to learn and improve, as I have all along experienced in the Course of the Lessons already given you?

P. Doubtless you may; for, in our several Conversations together, you have frequently intimated, that the Subjects then handled, though useful in themselves, yet chiefly merited Attention as preparatory to other Things of greater Moment and Consequence. This Consideration made me listen to you with Pleasure, and I have waited impatiently for the Time when I was to enter upon more serious Studies.

G. I am pleased to find you so well disposed. You discover a Judgment and Understanding much above your Years; and, as I plainly see that my past Instructions have not been wholly unprofitable, I proceed with the greater Chearfulness. And now that I am to lead you regularly thro' the most important Branches of human Learning, I shall begin with giving you Directions for that Study, which above all others conduces to make a Man knowing, prudent, and virtuous. For this is the capital Point in Education, and what ought to be established as the Ground-work of all our other Improvements, if we mean that they shall be either profitable to ourselves  
or

or those with whom we converse. And indeed when the Principles of Virtue and Prudence are once thoroughly settled in the Mind, there will be little Difficulty in furnishing it with other useful Parts of Knowledge. For the Obstructions commonly met with in conducting Youth through the Sciences, are owing for the most part to a Disgust, or Want of Relish and Inclination. But a Mind that is well seasoned with worthy and commendable Sentiments, will hardly give way to Impressions so hurtful and injurious to itself.

P. I am perfectly satisfied of the Truth of what you say; nay, and have often reflected within myself, that the Anxiety my Parents discovered about my Progress in Study must proceed from their knowing it to be for my Good. I had observed them tender and careful of me in every thing, afflicted when I was sick or in Pain, and pleased when I behaved well, so as to deserve Commendation from others. All this led me to conclude, that my Profit was their chief Aim in every thing they did relating to me. I am therefore delighted to hear you now mention a Study that will serve to make me more knowing and prudent, and, by convincing me that it is for my own Advantage to pursue Learning and Instruction, conquer any Reluctance that may still hang about me, and add Spurs to my Industry. But what Study do you mean?

G. I mean the Study of History.

P. Of History! How does that tend to make one knowing and virtuous?

G. Have Patience: These Things must be unfolded by Degrees, that you may see Step by Step the Advantages to be derived from this Branch of Learning, and comprehend thoroughly the many valuable Purposes to which it serves.

P. I am not wholly a Stranger to History; for I often take Pleasure in reading by myself what is related of the ancient Empires, especially of the *Greeks* and *Romans*, and am tolerably well acquainted with most of their great Men.

G. So much the better: You will relish the more the Lessons I am to give you upon this Subject. For as I shall only remind you of Facts you know already, and accompany them with Reflections which probably did not occur to you in reading; you will no doubt be pleased to view them again in new Lights, and surrounded with quite new Circumstances. It will be no Reflection upon your Judgment, if I suppose that Wars, Battles, and the shining Exploits of the Heroes of Antiquity, have hitherto seemed most worthy of your Attention. It is natural for these Things to leave a strong  
Impression

Impression upon young Minds; nor ought we to wonder at it, since even Men of riper Years are very apt to be misled by them. How many admire the Characters of *Alexander* and *Julius Cæsar*, as the most illustrious in ancient Story, purely on account of the many Victories they gained, and the great military Renown they left behind them! They never consider them as the Authors of Misery to thousands, as laying waste Countries out of Wantonness and Ambition, spreading Desolation where-ever they came, and depriving Multitudes of what they held most dear and valuable. These, I say, are Reflections that often escape the more wise and knowing; much less are they to be expected from young Minds, dazzled with the Lustre of their great Actions. I therefore readily excuse you, if, in reading the Lives of these renowned Commanders, and others mentioned in History, you have passed such a Judgment upon Men and Things, as was natural to your Age, and the yet imperfect State of your Understanding. But it is now time to remove these Prejudices, and teach you to distinguish between what is really valuable in a Character, and what deserving of Censure; that, while you do Justice to Abilities, Valour, and Prudence, as Talents in themselves worthy of Esteem, you may not fail to condemn the Misapplication of them: For how different is the Man who employs great Qualifications in advancing the Cause of Virtue, and promoting the Happiness of Mankind, from him who makes them subservient to the Gratification of his own Vices and Passions, and, by his superior Abilities, is only led to do the greater Mischief? But, besides correcting the wrong Notions you may have formed by an over-hasty Decision, and conducting your Judgment aright with regard to past Transactions; it is also my Business to instruct you how you are to manage the Study of History, that it may furnish you with Maxims of Prudence and Wisdom for the Conduct of Life, supply Motives to Virtue, and beget a Detestation of Vice.

P. You lay before me a very agreeable Prospect, and recommend a Part of Knowledge than which nothing can appear more amiable. Nay, I begin already to view Things with other Eyes than formerly; and am impatient to hear your Directions for the Prosecution of a Study from which I am like to derive so many Advantages.

G. Nor shall you wait long for the Satisfaction you desire. It were Injustice to deny giving all possible Assistance to one who discovers so high a Relish for these Studies, and so uncommon a Capacity of Improvement. I shall begin there-



fore with observing, that History ought to precede most other Parts of Learning, and prepare the Way for them. It is remarkably level to the Capacities of Youth, and suited to the Make and Constitution of their Minds. For the Reading of History serves not only to instruct, but also to entertain; and the great Secret of Education lies in knowing how to render Learning agreeable, that the Mind may find in it something inviting and captivating, and be drawn to the Pursuit of it from Liking and Inclination. Besides, no Study is better adapted towards exciting Curiosity, which is but an Appetite after Knowledge, and therefore ought carefully to be cherished. Consider then, my dear Pupil, that by reading History you will enrich your Memory with a great Variety of agreeable and useful Facts, which, while they gratify your Curiosity, will at the same time contribute to form your Heart and Understanding. Reflect only upon your own Mind, and the Inclinations you therein feel. When any new and uncommon Object is presented to you, how impatient are you to examine all its Parts, and be informed of its Nature and Use? You take a Pleasure in extending your Acquaintance among your Companions, and learning all their Diversions. This is a commendable Inclination, and highly deserving of Encouragement. All I want is, to direct this Bent aright, and apply it to noble and worthy Pursuits. If the limited Acquaintance you have in the World, the Objects that surround you within so small an Extent, and some minute Transactions of present Times, furnish Matter of Inquiry and Amusement, and are sufficient to excite your Curiosity, how much greater Delight may you reasonably propose to yourself in extending the Bounds of this Knowledge, by taking a View of the Pursuits, Employments, and Inclinations of Men of all Ages and Conditions; by travelling into distant Nations, traversing the vast Regions of the Universe, and carrying your Researches back through the long Series of Ages which have succeeded one another since the Creation of the World? These great Advantages you will attain by the Study of History. It lays open to you all Countries, Times, and Transactions, and makes you in a Manner an Eye-witness to the astonishing Changes and Revolutions that have from time to time happened in the World. By perusing the Records of past Ages, we carry ourselves back to the first Original of Things, and enter upon a new Kind of Existence. We see the World rising out of nothing, behold how it was governed in its Infancy, how overflowed and destroyed in a Deluge of Water, and again re-peopled,

repeopled. We trace the first Institution and Establishment of Kingdoms and Commonwealths, observe how they rose, flourished, and decayed, and enter into a Kind of Intimacy and Correspondence with the several great Men who contributed to these mighty Revolutions. And here it is chiefly that, by taking a View of the Actions and Behaviour of those that have gone before us, and examining into their Atchievements, Virtues, and Faults, the Mind comes to be furnished with prudent Maxims and Reflections, and is enabled to form wise and unerring Rules for the Conduct of Life, both in a private and public Capacity.

*P.* I should be glad to be informed in what Manner these Maxims and Regulations of Life are to be got from the Reading of History, that I may know how to apply to it with more Profit.

*G.* This is an ample Subject, were I to handle it in its full Extent; but I shall confine myself at present to some important Reflections, such as will point out in the most obvious Manner what you desire to know. And first, as History is the Representation of Mankind in all the various Circumstances and Conditions of Life, and lays before us their Characters, Counsels, Designs, and the Results of them; this apparently tends to the Enlargement of the Understanding, and will prove the best Security against the Prejudices and false Impressions Men are apt to contract from Education, and the prevailing Vices of the Age in which they live. It is almost impossible for young Minds not to receive a strong Tincture from the Manners and Opinions of those with whom they converse. And if Riches, Honours, and the Splendor of a public Life, are the grand Objects of Pursuit, and draw after them the Applause of Mankind, it is easy to conceive what Effect this will have, and how early we shall begin to give way to the Impressions of Ambition and Avarice. We see great Court paid to Men of Wealth and Power, they are flattered and extolled by all that approach them; and are so far the Objects of universal Esteem, that the rest of Mankind seem ambitious of sharing their Favour, and pride themselves in being of the Number of their Friends. Hence we are led to look upon that as really valuable which we see every-body set a Value upon, and to affix Ideas of Worth and Dignity to these External Advantages of Life that make no Part of it, nor depend upon ourselves. Now by looking into the Transactions of past Ages we shall be best enabled to correct these mistaken Notions, and form a true Judgment of what is deserving of Admiration and Praise. For History presents us  
with

with many Examples of Men who made a mighty Noise in the World, were highly honoured in their Lives, and passed thro' the greatest Dignities, but are now covered with Infamy and Reproach: While others, in the calm Enjoyment of a private Life, without any thing of that external Pomp which dazzles vulgar Minds, were the Delight of all that knew them, and have left behind them a Name grateful to Posterity. The Reason is plain. It is not a Man's Station, but the Virtues which adorn his Station, that recommend him to the Approbation of the Disinterested and Wise. And therefore, if you are ambitious of a rational and lasting Esteem, the Experience of former Times will teach you to aspire, not so much after Places of Rank and Distinction, as those Accomplishments which will enable you to pass through Life with Dignity and Applause: For, thus adorned, you cannot even in a private Station be without Honour; and if called to public Employments, must acquire accumulated Praise. Reflect then within yourself, whether it is not one of the most important Lessons of human Life, thus to arm the Mind against popular Errors, and the insinuating Language of the Passions, and dispose it to hearken to the calm Voice of Reason and Truth. For thus will Men know how to pass a sound Judgment upon great and good Actions, and, finding that Virtue and Probity are the only Way to solid and true Renown, will begin with establishing these as the Foundation of their After-conduct.

And as History in this Manner directs to the Pursuit of what is truly great and praise-worthy, so will it prove the best Guide to conduct us through all the Intricacies of Life. For here we shall see what Measures and Counsels make the Issue of Things fortunate, and what Kind of Behaviour it is that involves the Authors of it in Ruin. Above all, we shall be taught to be diffident of ourselves, and to guard against our Passions as our most dangerous Enemies. For there is a certain Impotence of Mind, which, by making Men Slaves to the present prevailing Inclination, not only works Havock and Destruction in Families, but has often laid whole Countries and Kingdoms desolate. And the Examples of this Kind, which frequently occur in History, are most likely to put Men upon their Guard, and make them sensible of the great Importance of Continnence and Moderation. It is the first Part of Wisdom, says a celebrated Poet, not to be a Fool; and, in like Manner, it is the first Part of Virtue to strengthen the Mind against the Attacks of Vice, and secure all the Avenues by which it might make its Approaches. A Man  
who



who has attained to a thorough Command over himself, and knows when to indulge and when to repress his Desires, builds his Happiness on a firm and unshaken Foundation ; and, by establishing Peace within, secures a Tranquillity not subject to be ruffled by the Storms and Sallies of Passion. These and such like Maxims of Prudence delineated in History, and which the Reading of it often suggests, will teach you to begin with yourself betimes, to take an Account of your own Mind, its Inclinations, Appetites, and Desires ; that you may thereby establish that Subordination of its Powers to Reason, that intimate Harmony of Affections, which is the Source of Virtue and a well-regulated Life. And here let me observe to you, that by this means you will not only be qualified to acquit yourself with Applause in every Character, when you come to enter upon the greater Scenes of Life ; but will be also reconciled to such present Accidents and Occurrences as may hitherto perhaps have given you no small Mortification.—To illustrate my Meaning by a familiar Instance. You have Parents that are extremely indulgent, and every Day give Proofs of their Love and Affection for you, and yet they do not think fit to gratify you in all your Desires. When you ask for new Cloaths, the Demand is not always granted ; and if a youthful Vanity prompts you to aspire after every Piece of Finery that prevails among those of your Age, they now and then check the growing Inclination, and you are obliged to put up with a Refusal. On these Occasions, you are sometimes no doubt greatly disgusted, and tempted to think the Behaviour of your Parents harsh, unreasonable, and severe. But when, by the Study here recommended, you see the ill Consequences of a Man's not being used early to Opposition and Contradiction ; that thereby ill Habits are apt to grow upon him, and he becomes quite unfit for the Practice of that Self-denial and Restraint for which there is so frequent Occasion in Life ; you will then own and approve the Wisdom of your Parents, in accustoming you betimes to this Virtue, and think it a Happiness, that there is already some Foundation laid for that Command and Mastery over yourself which it must henceforward be one great Aim of your Life to acquire.

P. Indeed you here propose an Example that leaves a very strong Impression upon my Mind ; and had this Reflection ever occurred to me before, it might have prevented many Mortifications and Heart-burnings that were for the time at least very irksome to bear.

G. It



G. It is well that you begin already to be convinced of these Truths. Experience and Observation will, I doubt not, contribute to root them deeply in your Mind. But to return to our Subject: As, from what has been already said, you see that History best teaches what is honourable and becoming in all the various Stations of Life, and how a Man may acquit himself with Dignity, if Fortune smiles upon him, and recommends him to Places of Credit and Power, so will it give you the truest Insight into the Instability of human Things, and thereby prepare you for those Revolutions and Changes which in the Course of Life may happen. For, when you look back into the Annals of past Ages, you see not only particular Men and Families experience these Alterations, but even mighty Kingdoms and potent Empires have undergone the same Fate. *Greece* and *Rome*, heretofore famous for their invincible Armies, renowned Commanders, and the Extent of their Dominions, are now brought to a Level with other Nations, yea sunk to the most abject State of Slavery. The Arts and Sciences, that flourished in so eminent a Degree among them, and spread their Reputation so far, are in a great measure dispersed into other Countries, and have contributed to raise them out of the Obscurity in which they were long involved. And, if great and powerful States are not exempt from these Changes, well may we expect them in the Fortunes of particular Men. And how useful must that Study be, which not only teaches us to acquit ourselves well upon any sudden Elevation or Success, but also arms us against the adverse Accidents of Life, so that no Reverse of Fortune shall be able to break the Harmony of our Minds? For here we meet with many Examples of Men, who, after supporting public Stations with Honour, have shone out no less illustrious in private Life: Others again, sinking suddenly from Riches to Poverty, have by their Behaviour added a Dignity to their low and depressed Condition. These are the Models which History lays before you; and by following these you will make yourself great, wise, and esteemed, in every Sphere of Life. If called to public Employments, you will know how to fill them with Lustre; and, being well apprised of the Instability of human Affairs, will not suffer any Attachments to grow upon you, that by a Reverse of Fortune might destroy the Balance within. A Mind rightly constituted is not intoxicated with Prosperity; but, still looking forward, and foreseeing the Possibility of a Change, disposes itself to submit without Murmuring or Regret.

I have

I have one Observation more to make before I leave this Subject, and it is: That History acquaints us with the different Characters of Men; and lays before us their Views, Interests, and Designs. By this means we become instructed in the several Windings and Labyrinths of the Human Heart; and may be said to enter into the Commerce of the World before we meddle with the Business and Transactions of it. And of how great Advantage this may be in the future Conduct of your Life, will not need many Words to explain. Were you sent abroad into the World quite a Stranger to the Manners and Customs of it; and unacquainted with the Dispositions and Characters of Mankind; you would be liable to be deceived in every Instance, and could not attain the Capacity of judging in difficult Circumstances and Conjectures; but by Experience of Errors past. For, being a Stranger to Deceit yourself, you would not expect it in others, and, by laying your Heart open to all without Distinction, would give selfish and designing Men an Opportunity of drawing you into their Snares. Now History is in this Case a safe and sure Teacher; for there, without Hazard to ourselves; we are made wise by the Experience of others. We see the Passions of Mankind; their interfering Interests, and all the Artifices by which they impose upon one another. We are taught to be upon our Guard against Flattery, to shun the Contagion of Vice, to disclaim all Commerce with the Dissolute and Abandoned, and associate only with the Wise and Good. Tell me whether these are not Advantages you ought to covet, and whether they do not make the Study of History appear well worthy of your Attention?

P. I must be very slow of Apprehension, indeed; not to own this; nor are you to wonder, after the Description given, if I think every Hour an Age till I enter seriously upon this Part of Knowledge. Begin therefore according to your Promise, and instruct me in what Manner I am to proceed, so as to draw the greatest Advantage from the Study I am to enter upon.

G. That is properly now my Task, and accordingly I set about it with Joy. And here let me first observe to you, that as History is a Recital of past Events and Occurrences that have been carried on in different Countries, and in a Series of Ages the one succeeding the other; in order to reap the Fruits of it in their full Extent and Maturity, it will be necessary to have some previous Knowledge of the Succession of Times, and of the several Nations and Kingdoms where these Transactions took Place. For it so happens, that the Revo-

lutions of one Age often give rise to, and are strictly connected with, those of another. And therefore we can form but very confused Notions of the Rise and Fall of Empires, and the Establishment of States, without some such general Comprehension of the whole Current of Time as may enable us to trace out distinctly the Dependence of Events, and distribute them into those Periods and Divisions that shall lay the whole Chain of past Transactions in a just and orderly Manner before us. This is that Part of Knowledge which the Learned distinguish by the Name of *Chronology*: importing a Discourse concerning Time. In like manner, the Situation of Kingdoms in respect of one another, and their different Interests and Views, often give rise to Wars, Devastations, and other memorable Occurrences; insomuch that if we would see clearly into the Causes of those Quarrels that have divided the World, and comprehend the Motives upon which the several Princes acted, it is necessary that we acquaint ourselves with the various Distributions of the Earth, the Extent of Kingdoms and Commonwealths, and their Subdivisions and Dependencies. For thus shall we understand how the convenient Situation of one Country or Province in respect of another, by rousing the Ambition of some neighbouring State, powerful and aspiring, brought on mighty Wars and Contentions, and, aggrandizing one Nation at the Expence of another, paved the Way to the greater Empires. But this last Branch of Science, known by the Name of *Geography*, having been already handled in a preceding Chapter, I shall say nothing more of it here. The other I purposely reserved till now, resolving not only to premise it as an Introduction to History, but also to make it serve for a Guide to conduct you through the several Periods and Divisions of it.

P. As from your Manner of representing Things I see clearly into the Dependence they have one upon another, and that Chronology must necessarily precede History, in order to throw some needful Illustrations upon it; I can patiently bear this Interruption, and suspend my Curiosity after Things past, until I carry this Guide and Conductor along with me.

G. And in return I promise you that you will have no Cause to repent it. Now Chronology, as I said before, is a Science that takes Account of Time, and adjusts it to past Transactions. I shall not trouble you with the nice Speculations of Philosophers in the Definitions they have endeavoured to give us of Time, as tending rather to perplex than illustrate the Matter. Let it suffice to observe, that the Idea of it seems



to arise from the Reflection of our own Minds, when, in turning our Thoughts upon the general Course of Things, we consider some as present, some as past, and some as to come. For here Consideration is had of various Periods, not co-existent, but following one another in Succession; and the Interval between any two of these Periods is what we properly call a Space of Time. The general Idea thus explained, it will be easy to trace its different Shapes and Modifications. For in taking account of Things past, they appear to the Mind either as existing together, or as distant from one another by various Intervals. And when these Intervals come to be compared, some of them appearing longer than others, and these longer being considered as double or triple the shorter, hence we get the Notion of measuring one Portion of Time by another, than which nothing can tend more to render our Ideas of it clear and distinct. For when any Extent of Time is too large for the Mind to take in at once, by thus considering it as a Composition of some lesser Space, and equal to a certain Repetition of it, the Idea is ascertained, and passes in a distinct Review of all its Parts before us. But then, when we come to apply these Measures to Time, either as running on in continual Succession, or as already past and gone, we find ourselves lost in an unmeasurable Depth, and meet with nothing to bound us either Way. This makes it necessary to fix upon some determinate Point or Points in this infinite Duration; from which, as from a Beginning, the various Measures of Time, as Days, Months, Years, &c. may be numbered either backwards or forwards. And accordingly several Roots or Terms of this Kind have been devised by different Nations, as they happened to think one Thing or another more worthy of Remembrance, and therefore fit to give a Date to other Transactions. They are called Epochas or *Æras*, as being a Kind of Resting-place for the Mind, from which to look about it, and begin its Computations.

Now from what has been said you will readily perceive, that the whole Science of Chronology may be fitly divided into two Parts or Branches; one comprehending the Knowledge of the various Measures and Periods by which Time is computed; and the other describing the several *Æras* and Epochas, from which, according to different Nations, Events are dated. For by knowing these two, you are Master of the whole Current of Time, as being not only able to calculate the Length of any Interval or Distance, but also, by comparing the Computation of various Ages and Kingdoms, to fit



them one to another, and, by adjusting the Whole to some Standard Period, regulate the intire Succession of past Transactions.

P. I see it evidently; and as the Measures and Periods of Time seem naturally to come in first, being those by which we compute from the others, I should be glad that you begin with them.

G. I design so. And first, as the Idea of Time in general is acquired by considering the Parts of Duration as existing in Succession, and distant from one another by several Intervals; so the Idea of any particular Time or Length of Duration, as a Day, a Month, a Year, &c. is obtained by observing certain Appearances uniformly returning at regular and seemingly equidistant Periods. For thus we get the Notion of equal Spaces, and, by variously multiplying and combining these, can form to ourselves different Measures of Time, of different Lengths, according to the Exigency of things. Now the Motions of the Sun and other heavenly Bodies, by reason of their Constancy and Equability, easily invited Men to make them the Standard by which to regulate these several Dimensions. And because the apparent diurnal Revolution of the Sun was not only constant and equable, but frequent and of a shorter Circuit; hence it naturally became the first Measure of Time, under the Denomination of a Day.

A Day therefore may be defined to be a Division of Time, drawn from the Appearance and Disappearance of the Sun; and is of two Kinds, Artificial and Natural.

The Artificial Day, which seems to be that primarily meant by the Word Day, is the Time of Light, or of the Sun's Stay above the Horizon, determined by his Rising and Setting: In Opposition to which, the Time of Darkness, or of the Sun's Continuance below the Horizon, from Setting to Rising again, is called Night.

The Natural, or, as it is also called, the Civil Day, is that Space of Time wherein the Sun compleats his Circuit round the Earth; or, to speak properly and astronomically, the Time of an entire Revolution of the Equator. Different Nations have acted with great Diversity of Choice, in fixing the Beginning of their Days; some computing from the Rising, others from the Setting of the Sun, and others again from his passing the upper or lower Meridian. Hence the ancient *Babylonians*, *Persians*, *Syrians*, and most other Eastern Nations, with the present Inhabitants of the *Balearick* Islands, the *Greeks*, &c. begin their Day with the Sun's Rising. The  
ancient

ancient *Athenians* and *Jews*, with the *Austrians*, *Bohemians*, *Marcomanni*, *Silesians*, modern *Italians*, and *Chinese*, reckon from the Sun's Setting. The ancient *Umbri* and *Arabians*, with the modern *Astronomers*, from Noon. And the *Egyptians* and *Romans*, with the modern *English*, *French*, *Dutch*, *Germans*, *Spaniards*, and *Portuguese*, from Midnight. And as different People thus varied as to the Time of beginning the Day, so were their different Distributions and Divisions of it into Parts; some distinguishing the Time of the Artificial Day into twelve equal Portions, which therefore in different Seasons of the Year must be of different Lengths. But the Distinction that now most generally prevails is that of the whole Space of Day and Night into twenty-four Hours, which, being so well known to you already, will need no farther Illustration.

P. We have now, I see, got one Division of Time, and I am much mistaken as to your Manner of proceeding hitherto, or from this small Beginning, you will deduce the whole System of Chronology.

G. That indeed is my Design, and will, I hope, in the End, turn considerably to your Advantage. The more simple and fewer the Principles are with which we set out, the easier it will be to comprehend the Science built upon them. In fact, all the Periods and Distinctions of Time we meet with in Chronology are no other than various Combinations of this first Measure, accommodated to the particular Wants of Mankind, the different Appearances of the Heavens, and the several Intervals of past Transactions. Men were, no doubt, in the Beginning, contented with the simple Revolution of a Day, and for some little Time it would well enough serve all the Purposes expected from it. But as the World advanced in Age, and the Intervals between the different Transactions became large and extended, the Number of Days would multiply so fast, as soon to discover the Necessity of instituting more comprehensive Measures of Time, for the easy and convenient Computation of these longer Spaces. This was done by combining Days into various Systems and Classes of different Lengths, according to the Exigency of Things, which gave rise to the Institution of Months, Years, Olympiads, Lustra, &c. And here again the Motions of the heavenly Bodies were found to be of singular Use. For as before, the Sun, by his apparent Revolution round the Earth, had marked out the Space of a Day; so the other heavenly Bodies, by their several Motions, and a regular Succession of various Phases and Appearances, directed Mankind to such Combinations

nations of their Days as corresponded with the aforesaid Changes. Thus many of the Distributions of Time became not only useful in Computation, but served also as Measures of the Phænomena and Revolutions of the Heavens. Hence the strict Connection between Astronomy and Chronology, this latter being in a manner wholly founded on the other, and presupposing some general Knowledge of it. But although in the more early Ages of the World the Divisions of Time were made to correspond exactly with the heavenly Motions, and Rules of Intercalation provided to bring the Revolutions of different Luminaries to an Agreement; yet it is now found more convenient to regulate Time by the Annual Motion of the Sun only, neglecting, at least in civil Computation, the lunar Revolutions. But, as ancient Chronology cannot well be understood without some Knowledge of these also, I shall contrive my following Explications so as to answer all the Ends of this Science, and give you some general Idea of it, both in its ancient and modern State.

I have already observed, that all the Measures of Time made use of in Chronology are no other than various Combinations of Days, accommodated to the Exigencies of Things. It therefore now remains, that I take account of the several Divisions and Classes, shew how they are formed, and in what manner applied to the regulating of past Transactions, and connecting the Series of History. The first and most simple Combination of this Kind now in use, is what we call a Week; and is a System of seven Days continually recurring, instituted to perpetuate the Memory of the Creation, which being finished in six Days, the seventh was appointed a Day of Rest, and thenceforward every seventh Day, in Commemoration of this great Event. It is observable, that not only the *Jews*, to whom this Institution was immediately revealed by God himself, but the *Syrians* also, the *Egyptians*, and most of the oriental Nations, made use of this Division of Time into Weeks. And this was probably owing to some Remains of the Tradition of the Creation, which they had still retained with divers others. The Names given to the Days of the Week at present are those which were in use among the ancient Heathen Nations, who denominated them from the seven Planets. Thus the first Day was called *Sunday*, *Dies Solis*; the second *Monday*, *Dies Lunæ*, &c. and so for the rest. The Reason of these Denominations is best derived from the ancient Astrology. For the Professors of that Science, distributing the Government and Direction of all the Hours of the Week among the seven Planets,



Planets, so as that the Government of the first Hour of the first Day fell to *Saturn*, that of the first Hour of the second Day to *Jupiter*, &c. they gave each Day the Name of the Planet which presided over the first Hour thereof. And these Names, with some little Variation of their Order, are, as I observed before, still retained among the Christians of the West.

The next considerable Division of Time is into Months. These at their first Institution regarded chiefly the lunar Motions, and were accordingly regulated by them. But as the Phases and Appearances of the Moon are now of little or no Consideration in civil Computations, a great Alteration has hereby happened in Chronology; and a Month most commonly means no more than that Space of Time by which we divide the Year into twelve Parts. Now, for the farther Illustration of this Matter, we are to observe, that Months may be fitly divided into Astronomical and Civil. Astronomical Months (so far as it is useful to consider them here) are those measured by the Revolution and Phases of the Moon. They are again subdivided into Periodical and Synodical. The Periodical Month is that Space of Time in which the Moon by her Motion returneth to the same Place of her Orb from whence she set out; and consists of twenty-seven Days, seven Hours, and forty-three Minutes nearly. The Synodical Month is computed from one Conjunction of the Sun and Moon to the next Conjunction following, and differs from the former in this; that whereas the Periodical Month respects only the Moon's Orbit, and her intire Revolution in the Zodiac, the Synodical is so called in respect of her Conjunction with the Sun. Now, after the Time of this Conjunction, the Sun does not continue in the same Place of the Zodiac, but moves forward toward the East; upon which it falls out, that the Moon, finishing her Course, does not find the Sun again in the same Point where she left him, he being removed almost a whole Sign from his former Place. So that, to overtake the Sun again, it plainly appears, that a certain Space of Time is requisite besides the Periodical, which makes up the Synodical Month. The Quantity of a Synodical Month is not at all times the same; because the Sun's apparent Motion being different in different Parts of his Orbit, must occasion some Variety in this respect. The mean Motion, however, as Astronomers call it, is computed at twenty-nine Days and a half. This Synodical Revolution of the Moon was the proper Lunar Month of the Ancients, and at the same time shews the Reason why, in the Lunisolar Year, the Months consisted of twenty-nine



and thirty Days alternately. For, in the Month of twenty-nine Days, the Appendage of twelve Hours, being omitted, was to be added to the next Synodic Revolution; which consisting likewise of twenty-nine Days twelve Hours, did, with the twelve Hours omitted in the former Month, make up an exact Space of thirty Days. And this alternate Distribution of Months must, we see, happen constantly and regularly.

What has been said will be sufficient to give an Idea of the Astronomical Month, in Use chiefly among the Ancients, and here explained, to pave the Way to what may be afterwards said of their Chronology. As for the Civil Month, it is no more than that Space of Time by which we divide a Year into twelve Parts, and is different in different Nations. The Civil Calendar Months which now obtain thro' *Europe* consist all of thirty or thirty-one Days, *February* excepted, which every fourth Year includes twenty-nine Days, and the other Years only twenty-eight; but of this more hereafter.

We come now to the last and greatest Distribution of Time founded on the Motion of the heavenly Bodies; I mean that taken from the Sun's apparent Revolution in the Ecliptic, and called a Year. I shall not enter into the nice Distinctions of Astronomers, who divide the Year into Sidereal and Tropical, as that would add but little to your Chronological Knowledge. It will better answer my Purpose to give a short History of the Year, with its various Changes and present Form. Besides the more obvious Revolution of the Sun, by which he is carried round the Earth in the Space of twenty-four Hours, and marks out the Quantity of a Natural Day; there is also a second Motion belonging to him, carried on more slowly, and not compleated till after some considerable Time. This is what Astronomers call his Annual Revolution, by which setting out from some remarkable Part of the Heavens, as the Equinoctial or Solstitial Points, he is observed after a certain Number of Days to return again to the same, and so on in continual Succession. Now, as in the Case of the Diurnal Motion, his regular Appearance and Disappearance naturally drew after it the Observation of Mankind, and directed them to the easy and convenient Distinction of Time into Days: so here, his Annual Motion being attended with a Vicissitude of Seasons, which follow one another in Succession, and always return when the Sun returns to the same Part of his Orbit which produced them before; it would not be long before Men would become sensible of these Alterations, and, observing them to be uniform and constant, would, by a Curiosity natural to them, be for finding out,

out, if possible, the Causes of them. Add to this, that as the fixing of Seed-time and Harvest, with several other important Concerns of Life, depended upon this Discovery, they were likely to be the more diligent in their Researches. Having therefore found that this Change of Seasons was occasioned by the Sun's apparent Revolution in the Ecliptic, they set themselves to compute the Time in which this Revolution was performed, and, having determined it in the best Manner they could, thereby ascertained the due Return of the Seasons. This second Period of the Sun is what we call a Year, and, by the nicest Observations of later Astronomers, is found to contain 365 Days, 5 Hours, and 49 Minutes. It cannot be expected, however, that in the earlier Ages of the World, when Astronomy was but in its Infancy, this Accuracy of Calculation could be obtained. Men approached gradually to the true Measure of the Year, correcting former Errors by new Observations. Their first Computations, as is natural to suppose, must be deficient. The most ancient Form of the Year we know of, is that which divides it into 360 Days. This is plainly the *Mosaic* Year, and is by some, not without Reason, thought to be as old as the Deluge. For *Moses*, in the Description which he gives us of that general Catastrophe, assigns 150 Days to five Months, which is allowing 30 Days to a Month, and 12 Months of 30 Days make exactly 360 Days. Indeed *Herodotus* ascribes this Form of the Year to the *Egyptians*; and many learned Men, moved by his Authority, think that *Moses* describes the Deluge, not by any Years or Months in use so far backwards as the Times of which he wrote, but by that Form of the Year which he had learnt in *Egypt*; it being said of him in holy Writ, that he was skilled in all the Learning of the *Egyptians*. But not to dispute about the Antiquity of this Form; so far is certain from the Testimony of *Herodotus*, that it was in use for some Time among the *Egyptians*. An Error however of upwards of five Days was too considerable to pass long unobserved. Accordingly we are told, that *Hermes Trismegistus* added five Days more to the Account, by which means they approached pretty near to the Truth. On this Footing *Thales* is said to have instituted the *Grecian* Year: but that Form did not hold long among the *Greeks*, they on account of their Festivals preferring the Lunisolar Year. This consisted of 12 Synodic Months, of 29 and 30 Days alternately, making in all 354 Days to the Year. But as this fell short of the true solar Course by eleven Days, and would thereby in time shift the Beginning of the Year backwards through all the

the Seasons; to provide against this Inconvenience, Rules of Intercalation were contrived, to keep the Motions of the Luminaries as near as possible to an Agreement. These Intercalations I shall have Occasion to discourse more fully of hereafter; and would only at present observe, that the *Roman* Year, as introduced by *Romulus*, and afterwards reformed by *Numa*, was likewise measured by lunar Months, with intercalary Days appointed to keep the Beginning of the Year fixed to the same Seasons. The Care of these Intercalations was committed to the *Pontifex Maximus*, who, neglecting his Trust, let Things run to the utmost Confusion, insomuch that in the Time of *Julius Cæsar* the Winter Months were fallen back into Autumn, and the Autumn Months into Summer. *Cæsar* set about regulating these Disorders; and, to restore the Seasons to their proper Months, ordered the Year in which he began the Reformation of the Calendar to consist of 445 Days. This done, by the Assistance of *Sosigenes*, a famous Mathematician of *Alexandria*, he instituted a solar Year of 365 Days and six Hours. And as the six Hours could not be considered or taken Notice of in civil Use, he ordered them to be neglected till they made a Day; which happening every fourth Year, that fourth Year was to consist of 366 Days, and the intercalary Day to be inserted after the Feast of the *Terminalia*, which ended on the 23d of *February*. Now the Day after this being among the *Romans* called the sixth of the Calends of *March*, *Sextus Calendas Martii*, this in the intercalated Years was ordered to be reckoned twice, whence every fourth Year they had the *Sextus Kalendas*, &c. *bis* or twice repeated, which was the Occasion of giving this Year the Name of *Bissextile*.

But though this was a very happy Constitution of the Year, and what long obtained through *Europe*, as coming very near the Truth, yet is it not astronomically exact. We have seen already that the Sun's annual Revolution, or, as Astronomers call it, the Tropical Year, consists, according to the nicest and best Observations, of 365 Days 5 Hours and 49 Minutes. But the *Julian* Form computes the Year at 365 Days 6 Hours, which is 11 Minutes greater than the Truth. And although this, in the Consideration of single Years, appears to be but of little Moment, yet in the Space of a Century it amounts to almost a whole Day; and, in proportion as Time runs on, the Error becomes more considerable. In the Year 325, at the Time of the *Nicene* Council, the Vernal Equinox was found to fall upon the 21st of *March*; but, by this Error of eleven Minutes in the *Julian* Account, which in the Space  
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of 133 Years grows to be a whole Day, it so fell out, that in the Year 1582, when Pope *Gregory* set about the Reformation of the Calendar, the Equinoxes and Solstices had gone backwards ten intire Days; insomuch that the Vernal Equinox, instead of the 21st, fell upon the 11th of *March*. To remedy this Disorder, *Gregory* ordered ten Days to be suppressed, and what would otherwise have been the 11th of *March* to be called the 21st, that thereby the Equinox might fall on the same Day as at the Time of the Council of *Nice*. And, to prevent the like Variation for the future, he instituted a new Form of Years, called the *Gregorian*, in which once in 133 Years a Day is taken out of the Calendar. That this might be done with the least Confusion possible, he contrived it in the following Manner: From the 1600 Year of the Christian Æra, every hundredth Year, which, according to the *Julian* Form, is always a *Bissextile* or Leap year, was to become common; but every four hundredth Year was to continue a *Bissextile*, as in the *Julian* Account. By this Computation the Year 1700 was common in the *Gregorian* Stile: so will 1800 and 1900 be, all which are *Bissextile* in the *Julian* Account. But the Year 2000, both in the *Julian* and *Gregorian* Forms, will be *Bissextile*. So that, in short, the whole Difference between the two Methods of Computation is this; that from the 1600 Year of our Lord, of every four Years terminating four Centuries, the three first are common, and the fourth *Bissextile*, according to the *Gregorian* Calculation; whereas all four are Leap-years in the *Julian*.

You see therefore that the *Gregorian* Account is an Improvement upon the *Julian*, and carries the Form and Establishment of the Year to as great a Degree of Perfection as it is capable of, the vernal Equinoxes being thereby fixed almost for ever to the 20th or 21st of *March*. The *Julian* or Old Stile, as it is called, was used in *England* till *September* 1752, when the *Gregorian* or New Stile took Place, as it does in most other Christian Countries of *Europe*. And this was the Reason of that Difference of eleven Days between our and foreign Computations: for, as I said before, Pope *Gregory*, when he set about reforming the Year, ordered ten Days to be suppressed; and as, in consequence of his new Form, another Day was struck out of the Calendar at the End of the 17th Century, this makes in all eleven Days, the present Difference between the New and the Old Stiles. I have thus given you a short Account of the Year, with all the Variations it has undergone, till its last Reformation under Pope *Gregory* XIII. where the Accuracy  
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of Calculation is carried so far, as to leave no Room for After-Improvements. I might now enter into deeper Researches upon this Subject, and lay before you such other Constitutions of the Year as have prevailed in different Ages and Nations: but these are Inquiries rather of Amusement than Use. What has been said will, I flatter myself, serve as a sufficient Foundation for what other Particulars of the Science you shall find it necessary to render yourself Master of, in the further Prosecution of your Studies. Heaps of Definitions are burthensome to the Memory, and apt rather to create Disgust than convey any useful and satisfying Knowledge. But when the Principles of a Science are fully and clearly delineated, the more remote Branches lie open to the Mind, and flow in with Ease and Pleasure in the Course of a Man's Reading and Observation. Were I now to give you a Detail of all the various Forms of Years and Months used at different Times and in different Countries, the Multiplicity of Particulars would puzzle and confound you, and only serve to crowd one another out of the Mind. But as, from what has been advanced in the Reflections offered above, you know the Grounds upon which the several Calculations are built, all the rest will come in course, and be comprehended and retained with Ease, when you apply to the Histories of particular Nations.

P. I am sensible that what you say is just, and flatter myself I sufficiently understand all that is at present necessary to be known with regard to the Measures of Time already described. But I have still one Question to put to you, before you quit this Subject. You told me, I remember, that all the different Measures of Time made use of in Chronology were no more than certain Systems and Collections of Days, of greater or less Extent, according to the Quantity of the Period to be measured. You have likewise illustrated this Observation, by shewing me in what Manner Days are combined together so as to form Weeks, Months, and Years. But I am still desirous to know, whether, in the Computation of very large Intervals, it has not been found necessary to proceed by Combinations of Years. I think I have met with something of this kind in ancient History, and doubtless it is of Moment enough to merit a particular Notice.

G. You do well to put me in mind of a Thing so material in ancient Chronology. It is certain the Eastern Nations had formed several of these Classes of Years, by which they not only computed Time in general, but also the Reigns of their particular Princes. Thus *Berosus*, in his History of the

*Chaldean* Kings, computes by *Sari*, *Nari*, and *Sofi*. These Measures of Time, though common and well understood in the Age of that Historian, are nevertheless wholly unknown to us, any farther than that they are certain Collections of Years, whose Number we can only guess at. Some magnify the *Sarus* to three thousand six hundred Years, a Period of Time altogether beyond Belief. Others again, with more Probability, reduce it to that Number of Days, which amounts to just ten old *Chaldean* Years of three hundred and sixty Days each. But, as this Manner of Computation is now altogether laid aside in Chronology, it is of little Moment to puzzle ourselves with Enquiries about it. The Jubilees and Sabbatical Years of the *Jews* are of far greater Importance; not so much for their Use in Calculations, as because of the Customs depending upon them, and the frequent Allusions made to them both in the Historical and Prophetic Books of Scripture. How, for Instance, could *Daniel's* Prophecy of seventy Weeks be understood, without knowing, that as among the *Jews* every seventh Day was holy, and a Day of Rest, so likewise was every seventh Year a Year of Rest to the Ground, in which they were neither to sow nor reap. By this means their Time was divided not only into Weeks of Days, but also into Weeks of Years, which last are those alluded to in the above-mentioned Prophecy. Now seventy Weeks, in this latter Language, amounting to 490 Years, give sufficient Time for the Accomplishment of all the great Events predicted, as is shewn at large by the Ecclesiastical Historians. As to the Year of *Jubilee*, there is indeed some Dispute among learned Men; many fixing it to the seventh Sabbatical or 49th Year, while others contend that it was the next Year after. The Reason of this Difference is, that if we suppose it to have fallen on the Year after the seventh Sabbatical Year, then there must have been two Sabbatical Years together (the Year of *Jubilee* being also Sabbatical), and of consequence the Loss of two succeeding Crops, which seems highly improbable. However, it is the real Truth of the Matter, and so circumstantially described in Scripture, that one cannot but wonder to see Men endeavouring to explain away the most obvious and clear Texts, for the sake of a seeming Difficulty. This Year was observed with great Solemnity by the *Jews*, and was chiefly remarkable for the considerable Alteration it occasioned in their Properties and Estates; for at this time, by the express Command of their Law, all Slaves were made free, and all Lands that had been sold or mortgaged reverted to their ancient Owners. But I shall

shall now quit the *Jews*, and proceed to two other Distributions of Years of yet greater Moment in this Science, as being absolutely necessary to the right understanding of the *Greek* and *Roman* History: I mean the *Olympiad* and *Lustra*. The first of these was a Method of Computation in use among the *Greeks*, and of great Note in Chronology, as from them the Epocha of the History of that memorable People takes Date. *Varro* too, in his Division of the whole Series of Time into three Periods, begins the third or last, which he calls the *Æra* of true History, from the first *Olympiad*. Now an *Olympiad* was a Space of four Years, at the Expiration of which the *Olympic* Games were celebrated with great Pomp and Solemnity near the City *Olympia* in *Peloponnesus*. They are said by some to have been first instituted by *Hercules*, in Honour of *Jupiter*. But being afterwards discontinued for a time, they were revived by *Iphitus* the Son of *Praxonides* in the 3938 Year of the *Julian* Period, the 3228 Year of the World, and 776 Years before *Christ*. From this time they were continued without Interruption, and became the Epocha from which the *Greeks* computed their Years. The first *Olympiad* is marked by the Victory of *Corus* the *Elean*. These Sports were renewed every fifth Year, and after a Revolution of four Years compleat. They consisted of various Kinds of Exercises, in which such as were to enter the Lists took great Pains beforehand to accomplish themselves. The Conquerors were distinguished by the most particular Honours, and publicly crowned in an Assembly of all *Greece*. Nay, so great was the Esteem in which they were held, that at their Return a Piece of the Wall of the City was pulled down, to give Passage to their Chariot. The Computation by *Olympiads* seems to have ceased after the 364th, which ended with the Year of *Christ* 440; for we henceforward meet with no more Mention of them in History. The *Lustrum* again is a *Roman* Institution, and used by their Writers to signify a Space of five Years. It took its Rise from the Institution of the *Census* by *Servius Tullius*. This politic King, having distinguished the Citizens into Classes and Centuries, and ranked them according to the Valuation of their Estates, commanded them to appear on a Day appointed under Arms, and agreeable to the above-mentioned Distribution, in the *Campus Martius*, which was a large plain Field, lying without the City near the *Tiber*. Here, by the King's Order, was made a solemn Lustration or expiatory Sacrifice in the Name of all the People. The Sacrifice consisted of a Sow, a  
 Sheep,



Sheep, and a Bull; whence it took the Name of *Suovetaurilia*: The whole Ceremony was called *Lustrum*, à *luendo*, from *paying, expiating, clearing*; or perhaps from the Goddess *Lua*, to whom *Servius* is said to have built a Temple. But, because of the continual Change of Men's Estates, it was ordered that the *Census* should be renewed every five Years; and it being usually closed by the *Lustrum*, it was hence that the Word came to signify that Term of Years.

P. You have now, according to your Promise, explained all the most noted Computations of Time, whether ancient or modern. Is there anything farther to be observed on this Subject, before you enter upon the Consideration of the Epochas?

G. Epochas, as I told you before, are certain fixed Points of Time from which Men begin their Computations, and to which in all their Calculations they refer. Hence, by comparing different Transactions with the Epocha, and tracing their various Intervals and Distances, we can ascertain the Years in which they happened, and assign them their Place and Order in the Succession of Time. But it is evident that all this can regard only the Epocha immediately under Consideration. Where the different Epochas are used, as is frequently the Case in History, we must necessarily have some common Measure by which to compare them together, and discover the Relation they bear to one another. The Creation of the World, the Deluge, the Olympiads, the Building of *Rome*, and the Birth of *Christ*, are all celebrated *Æras* in History, and often made use of in the Computation of Time. It is apparent, however, that in reading the Transactions of different Nations, which may be referred to those or other *Æras*, we shall not know how to connect them together, or comprehend the coincident Times, unless we first establish some general Period, which may serve as the Standard and common Receptacle of all other Epochas. This done, we have only to reduce the several *Æras* to it; which throws the whole Train of past Events into one connected Series, and exhibits them in their distinct Order of Succession. Such a Standard as that we are speaking of is the *Julian Period*. And, as there is nothing more important in Chronology than to have a distinct Comprehension of this Period, and to see the Manner of its Application, I shall, in order to give a clearer Insight into the Subject in hand, explain, first, the Cycles of which it is composed; then shew how, by the artful Combination of these, such a Measure of Time is framed as preserves a happy Distinction in all its Parts, so that they are



in no Danger of being confounded or mistaken one for another; and lastly; I shall demonstrate the Use of this Period in regulating the several Epochas and Computations of Chronology.

The Consideration of Cycles makes properly a Part of Ecclesiastical Computations; they being chiefly contrived for determining the New and Full Moons, and regulating the Festivals of the Church depending thereon. In a View of Chronology therefore such as this, designed only for the Uses and Purposes of History, it will not be necessary to consider them any farther than as they go to the Composition of the *Julian* Period, and consequently make a Part of the Civil Measures of Time. Cycles in the general are no more than certain Periods or Series of Years, proceeding in an orderly Succession from first to last, when they are supposed to begin again, and so preserve the same Tenor in a constant Train of Revolutions. Thus the continued Series of Sabbatical Years among the *Jews* is called the Sabbatical Cycle, which thence consisted of seven Years; as a System of fifty Years continually recurring made their Jubilean Cycle. In like Manner, if we should suppose the Sun and Moon to set out together from any Point of the Zodiac, and after a certain Succession of Years to meet again in the same Point of the Heavens; as this Event must always happen upon the like Revolution of Years, this Number of Years would necessarily form a Cycle, by which to determine for ever the Coincidence of these two Luminaries in the Heavens. And accordingly this is the Intent of the Lunar Cycle, or Cycle of the Moon, of so great Note in Chronology. But in order to trace the Origin and Formation of it with the greater Exactness, we must go back to the ancient Form of the Year in use among the *Jews* and *Greeks*, which though properly Lunar, yet as they were obliged also to regard the Solar Motions, hence arose the Necessity of Intercalations, and of establishing a Cycle to regulate and adjust these Intercalations. The Year at first in use among the *Jews* was not settled by Astronomical Rules, but made up of Lunar Months, set out by the Phases or Appearances of the Moon. When they saw the New Moon, then they began their Months, which consisted alternately of 29 and 30 Days, for the Reasons given above. None of them had fewer than 29 Days, and therefore they never looked for the New Moon before the Night following the 29th Day; and if they then saw it, the next Day was the first Day of the following Month. Neither had any of their Months more than 30 Days; and there-  
fore

fore they never looked for the New Moon after the Night following the 30th Day; but if they saw it not then, concluded its Appearance was obstructed by Clouds; and of 12 of these Lunar Months their common Year consisted. But as this falls 12 Days short of a Solar Year; every one of these common Years, in respect of the Sun's Course, began 11 Days sooner than the former; which in 33 Years would carry back the Beginning of the Year through all the four Seasons. This Inconvenience they were under a Necessity of preventing for the sake of their Festivals. The Feast of the Passover was fixed to the Middle of the Month *Nisan*, and ordered to be celebrated by the eating of the Paschal Lamb, and the offering up of the Wave Sheaf, as the first Fruits of their Barley Harvest. The Feast of Pentecost was kept the 50th Day after the 16th of *Nisan*, the Day on which the Wave Sheaf was offered; and celebrated by the Offering of the two Wave Loaves, as the first Fruits of their Wheat Harvest. And lastly, the Feast of Tabernacles always began on the 15th of *Tisri*, being fixed to the Time of gathering in the Fruits of the Earth. It is evident therefore that the Passover could not be observed till the Lambs were grown fit to be eaten, and the Barley to be reaped; nor the Pentecost till the Wheat was ripe, nor the Feast of Tabernacles till the Ingathering of the Vineyard and Oliveyard were over. And therefore these Festivals being fixed to these set Seasons of the Year, it was necessary to adjust the Lunar Reckoning to the Sun's Course, and thereby prevent their Months from receding too far from the Seasons. For this Purpose, sometimes in the third Year, and sometimes in the second, they cast in another Month, making the Year then consist of 13 Months; whereby they constantly reduced their Lunar Year, as far as such an Intercalation could affect it, to that of the Sun, and never suffered the one to vary from the other above a Month. These Intercalations were regulated by the High-Priest and Sanhedrim, and Notice given of what they ordained in this Matter over all the Land. But when they became dispersed over all Nations, so as neither to have proper Opportunities of making the requisite Observations, nor Means of communicating them when made, it was then found necessary to establish fixed and stated Rules of Intercalation, that so they might be every-where uniform herein. And upon this Occasion it was that the Cycles and Astronomical Calculations of the *Greeks* were, with some little Variation, first introduced among them.

You see therefore that the *Jewish* Years, tho' properly and singly considered they were indeed Lunar, yet by these Inter-calations, and the keeping of their Months constantly fixed to the same Seasons, they became in their collective Sums truly Solar. The same Thing happened also among the *Greeks*, and for a like Reason. Their Years were indeed Lunar, as consisting of Months measured by the Motion of the Moon, but at the same time they took care to adjust these to the Solar Reckoning, for the sake of their Festivals, especially for the sake of the Olympiads. For being directed by an Oracle to observe all their solemn Sacrifices and Festivals *κατὰ τρία*, i. e. according to Three; and this being interpreted to mean Years, Months, and Days, and that the Years were to be reckoned according to the Course of the Sun, and the Months and Days according to that of the Moon, they thought themselves obliged hereby to observe all these Solemnities at the same Seasons of the Year, and on the same Month, and on the same Day of the Month. And therefore Endeavours were made to bring all these to meet together, that is, to bring the same Months, and all the Days of them, to fall as near as possible within the Time of the Sun's Course. The Difficulty therefore lay in finding out such Inter-calations as, without disturbing the Lunar Revolutions, would, by the additional Months thence arising, keep the regular Months duly fixed to the same Seasons. For as the Lunar Year fell only 11 Days short of the Solar; to have added these annually would have broke in upon the Succession of their Months, and destroyed the whole Scheme of their Year. For with them, in the same Manner as with the *Jews*, their Months always began with a New Moon, and their Years were always made up of these Lunar Months, so as to end exactly with the last Day of the last Moon, and to begin exactly with the first Day of the next Moon. It was necessary therefore, for the bringing of all to fall right according to the Directions of the Oracle, that the Inter-calation should be made by Months; and to find out such an Inter-calation of Months as would at Length bring the Solar Year and the Lunar Year to an exact Agreement, so that both should begin from the same Point of Time, was that which was to be done for this Purpose. For thus only could the Solemnities be always kept to the same Seasons of the Year, as well as to the same Months, and the same Days of them, and constantly be made to fall within the Compass of one Lunar Month at most sooner or later, within the same Times of the Solar Year. And therefore, in order hereunto, Cycles were to be invented;



invented; and to find out such a Cycle of Years, wherein, by the Intercalation or Addition of one or more Months, this might be effected, was the great Study and Endeavour of the Astronomers of those Times. The first Attempt that was made for this Purpose was that of the *Dieteris*, a Cycle of two Years, when an Intercalation was made of one Month; but in two Years Time the Excess of the Solar Year above the Lunar being only 22 Days, and a Lunar Month making 29 Days and an half, this Intercalation, instead of bringing the Lunar Year to a Réconciliation with the Solar, overdid it by 7 Days and an half. This Fault being soon perceived, for the mending of it the *Tetraeteris* was introduced, which was a Cycle of 4 Years, wherein it was thought that an Intercalation of one Month would bring all that to rights which was overdone by the like Intercalation of the *Dieteris*. And this was contrived chiefly with a respect to the Olympic Games. For they being the chief of their Solemnities, and celebrated once every four Years, Care was taken to bring them every fourth Year as near as possible to the same Time of the Solar Year in which they had been performed the Olympiad before. Now this Solemnity, according to the original Institution, was always to begin on the first full Moon after the Summer Solstice; and it was thought that an Intercalation of one Month in four Years would always bring it to this Time. But four solar Years exceeding four Lunar Years 44 Days, the adding one Lunar Month, or 29 Days and an half, fell short of curing this Defect upwards of 14 Days. This Fault likewise soon discovering itself, they intercalated alternately one four Years with one Month, and the next four Years with two Months, which brought it to the *Ostoeteris*, or Cycle of eight Years, wherein, by intercalating three Months, they thought they brought all to rights, and indeed it came much nearer to it than any of the former Cycles. For by this Intercalation the eight Lunar Years were brought so near to the eight Solar Years, that they differed from them only by an Excess of one Day and 14 Hours. And therefore this Cycle continued much longer in use than any of the rest. But at length the Error, by increasing every Year, grew great enough to be also discovered, which produced the Invention of several other Cycles, till at length the *Metonic* Cycle of 19 Years took Place, so called from *Meto* an *Athenian*, the Inventor of it. This great Astronomer found by Calculation, that if the Sun and Moon were supposed to set out together from any Point of the Zodiac, after 19 Solar Revolutions, they would meet again in the self-same Point, and



begin a new Period exactly agreeing with the former. These 19 Solar Revolutions he found to contain 235 Lunations, which make 19 Lunar Years, and 7 Lunar Months, to be added to them by 7 Intercalations. So that the whole Cycle consisted of 12 Lunar Years of 12 Months each, and seven intercalated Years of thirteen Months, which corresponding to 19 Solar or *Julian* Years, the New and full Moons after that Space not only return to the same Days of the *Julian* Year, but nearly to the same Hours of the Day. A Course of Observations therefore determining the Days on which the New and Full Moons happen during one Revolution of this Cycle, will also serve for the next Revolution of the same, and so on in Succession. The chief Use of this Cycle among the *Greeks* being to settle the Time of celebrating their Solemnities, and that of the Olympiads being the chief of them, on the fixing of which the fixing of all the rest did depend, it was in the first Place applied to this Purpose. And, as the Olympic Games were always to be celebrated on the first full Moon after the Summer Solstice, in order to settle the Time of their Celebration, it was necessary in the first place to settle the Time of the Summer Solstice. This *Meto*, the Year he introduced his Cycle, observed to be on the 21st Day of the *Egyptian* Month *Phamenoth*, which, reduced to the *Julian* Year, falls on the 27th of *June*. And therefore the *Greeks*, having received this Cycle, did from this Time forward celebrate their Olympiads on the first full Moon after the 27th Day of our *June*; and henceforth also began their Year from the New Moon preceding. The Year, in the Beginning of which the Olympic Games were celebrated, was in their Computation of Time called the first Year of that Olympiad; and in the Beginning of the fifth Year after they celebrated the next Olympiad, which made the Time from one Olympiad to another to be just four Years, according to the Measure of the Years then used.

I have thus given you a full, and I hope intelligible, Account of the *Metonic* Cycle, so famous in ancient Chronology; and still known amongst us under the Name of the Cycle of the Moon or Golden Number. Upon the ceasing of the *Greek* Solemnities, the Use of this Cycle also ceased, and so continued for several Centuries, till at length, after the Council of *Nice*, the *Christians* introduced it into their Calendar, and made Use of it in settling *Easter*, and the other moveable Feasts. For, by a Decree of that Council, *Easter-day* was fixed to the Sunday after the first full Moon that followed next after the vernal Equinox: Thus it became necessary in the *Christian* Church,

as well as among the *Greeks*, to calculate the New and Full Moons in the Heavens, and adjust them to the Solar Course. And as a better Cycle for this Purpose than the 19 Years Cycle was not to be found, because none other can bring the Course of the Sun and Moon to a nearer Agreement, the *Christian* Church accordingly pitched upon it, as the best Rule they could follow for the fixing of their *Easter*. And so great a Value did they set upon it, by reason of its great Usefulness in Ecclesiastical Computations, that the Numbers of it were written in the ancient Calendars in golden Letters; from whence, in our Present Almanacks, that Number of this Cycle which accords with the Year for which the Almanack is made is called the Golden Number. Now the Golden Number for any Year whatsoever of the *Christian* *Æra* may be easily found by the following plain Rule: The first Year of *Christ*, according to the Computation in Old Stile, fell in with the 2d Year of the Lunar Cycle; and therefore, if to the given Year of the *Christian* *Æra* you add one, and divide the Sum by 19, the Quotient shews the Number of Revolutions of the Cycle from the Beginning of the said *Æra*, and the Remainder after Division is the Golden Number required; but, if nothing remains, the Golden Number is 19. Suppose, for Example, the Golden Number of the Year 1746 were required: Then 1746 added to 1 makes 1747, and that divided by 19, gives 91 for the Quotient, with a Remainder of 18. And therefore 18 is the Golden Number for that Year; and 91 the Quotient expresses the Number of Revolutions of this Cycle from the Beginning of the Year preceding the Birth of *Christ*.

P. But does this Cycle of 19 Years bring the Solar and Lunar Revolutions to so exact an Agreement as to be always an invariable Rule in this Case?

G. Although the *Metonic* Cycle comes indeed very near the Truth, so as to shew the Lunations for the Space of three Centuries without the Error of a single Day; yet the Difference, continually increasing, grows in time to be considerable. For 19 Lunar Years and 7 intercalated Months, of which this Cycle consists, falling short of 19 *Julian* Years almost an Hour and an half, hence it hath followed, that in every one of the Years of this Lunar Cycle the New Moons and Full Moons have happened just so much sooner each Month than in the same Years of the Cycle immediately preceding. And hereby it hath come to pass, that, after the elapsing of so many Rounds of this Cycle as have revolved from the Times of the *Nicene* Council to the Year 1746, the New Moons and Full Moons in the Heavens have anticipated the New

and Full Moons in the Calendar of the Common Prayer Book four Days and an half ; because the New Moons and Full Moons are there stated, not according to the present Times, but according to the Times of that Council. These last are called Ecclesiastical New Moons, to distinguish them from the true ones in the Heavens ; and the general Table or Rule for finding *Easter* for ever may still be applied, if we make the proper Allowance above described. That is, in calculating the New Moons we must reckon four Days and an half before the Time assigned by the Calendar ; or, which amounts to the same, call the Day of the New Moon, as you find it by the Calendar, the fifth Day of the Moon's Age. In the *Gregorian* Reformation of the Calendar, the Golden Number is thrown out, and the Epact introduced in the Place of it. But as it is not my Intention here to meddle with Ecclesiastical Computations, any farther than is necessary to give a clear Idea of the Cycles that constitute the *Julian* Period, I shall here conclude my Observations upon the Lunar Cycle, which I have endeavoured to explain in the most full and distinct Manner, not only because of its great Note in ancient Computation, but also for the distinguished Place it still retains in our Civil Calendar.

*P.* What other Cycles, besides this of the Moon, are made use of in the Composition of the *Julian* Period ?

*G.* The *Julian* Period, besides the Lunar Cycle, takes in also two others : That of the Sun as it is commonly called, and the Cycle of Indiction. The Solar Cycle is so called, not from expressing any Number or Series of Solar Revolutions, but because by its Help we know the Dominical Letter, or the Character of *Sunday*. But to enable you the better to comprehend this, I must observe, that as we divide Time into Weeks, and describe the Days of the Week by seven several Names ; so are those Days distinguished in the Calendar by seven Letters set in alphabetical Order before them, and repeated to them in a constant Round throughout the whole Year. These Letters are the first seven of the Alphabet, A, B, C, D, E, F, G ; and the Custom is, to assign the Letter A to the first Day of the Year ; which if it happens to be a *Sunday*, then A is the Letter for *Sunday*, or the Dominical Letter ; and the rest are applied in Order to the other Days of the Week. Now as the Number of Days in a Week are seven, and the Number of Letters applied to them also seven, it is evident that whatever Letter answers to the first Sunday of the Year, will stand for *Sunday* all the Year round, the Revolution of Days and Letters being in  
this



this respect the same, and perfectly coinciding. It is manifest likewise, that if the Year was made up of an exact Number of Weeks, the Dominical Letter would continue constantly and invariably the same, because the first Day of the Year would always fall upon the same Day of the Week, and of consequence create no Interruption or Disturbance in the Order and Succession of Letters. But as this is not the Case, the odd Day or Days must unavoidably break in upon the Series, and to take Account of these Alterations is the Design of the Solar Cycle. As the common *Julian* Year consists of 52 Weeks and one Day; if the first Day of the Year falls upon a *Sunday*, making A the Dominical Letter, then will the last Day of the Year also fall upon a *Sunday*, and the first Day of the next succeeding Year will be *Monday*. But as the Letter A is always appropriated to the first Day of the Year, it now of course becomes the Characteristick of *Monday*, and the Letter that in due Order of Succession falls to *Sunday* is G, which therefore becomes the Dominical Letter of the Year. A like Train of Things will also shift the Dominical Letter of the ensuing Year back by one Letter, and throw it upon F. And this Revolution, were it allowed to run on without Interruption, would be determined in seven Years.

But it so happens in the *Julian* Computation, that every 4th Year is a Leap-Year, consisting of 366 Days, which make 52 Weeks and 2 Days; and in this Case the Dominical Letter will be shifted back by two Letters, and fall the following Year upon the next Letter save one in a retrograde Order. Thus if the Dominical Letter at the Beginning of a Leap-Year be A, it will not the following Year fall upon G as in the first Case, but, by a double Retrogression, because of the two odd Days, it is shifted back to F. And it is farther to be observed of these Leap-Years, that the same Dominical Letter is not, as in common Years, continued to the End of the Year, as might have been done, and the two odd Days suffered then to effect the double Change; but it has been judged more convenient to change the Dominical Letter in the Month of *February*, when the intercalary Day is inserted. Whatever therefore is the *Sunday* Letter at the Beginning of a Leap-Year, so continues till towards the End of *February*; but then, by reason of the Intercalation, the 23d and 24th Days are denoted by the same Letter, in which Case it is evident that the Dominical Letter must for the Remainder of that Year go one Place back. If therefore the Dominical Letter in the Beginning of the Year be A, after the 24th of



*February* it will be G, and the Year following it is thrown upon F, as we have already said.

You see therefore that there is a twofold Change happens to the Dominical Letter, according to the Nature of the Year in which it takes place. Every common Year shifts it back by one Letter, and in every Fourth or Leap-Year there is a double Retrogression. All these Variations are compleated in 28 Years, after which the Dominical Letters return as before, and exhibit the same Series in a perpetual Train of Revolutions. If therefore a Table is made, representing the Dominical Letters for every Year in Order of this Cycle, it will also serve for all the succeeding Revolutions of the same. For what is the Dominical Letter for any one Year of this Cycle, is also the Dominical Letter of the same Year of the next Round thereof, and so on for ever. Hence it is easy, with the Help of such a Table, to find the Dominical Letter for any Year, if you once know to what Year of the Solar Cycle the given Year corresponds. Now, to find the Year of the Solar Cycle answering to the given Year, proceed in the following Manner: The Year of our Lord's Nativity fell in the tenth Year of the Solar Cycle; and therefore if to the given Year of the *Christian* Æra you add 9, and divide the Sum by 28, the Quotient expresses the Number of Revolutions of the Cycle from the 9th Year before *Christ*, and the Remainder gives the Year of the Solar Cycle; but if nothing remains, then does the given Year answer to the 28th or last of this Cycle. As the Operation here is of the same Nature with that for finding the Golden Number, I hold it needless to illustrate it by a particular Example, and therefore shall here conclude my Remarks upon this Cycle; not doubting but, from what has been said, you will be sufficiently able to comprehend it in all its Varieties and Changes.

It now only remains that I explain to you the Cycle of Indiction, which is a System of 15 *Julian* Years continually recurring; about whose Original, Chronologers and Historians are greatly divided. The most general Opinion supposes it to have been instituted for the sake of certain Tributes and Taxes, the Time of whose Payment was thereby made known to the *Roman* Subjects. What these Taxes were, on what Occasion they began, and why they were confined to a Cycle of 15 Years, is still Matter of Dispute among the Learned. We only know that they were in use after the Time of *Constantine the Great*, and that *Justinian* the Emperor commanded them to be inserted in all public Instruments. Though the Taxes and Tributes that first gave Occasion to these Indictions

dictions have long since ceased, yet they still continue to have a distinguished Place in the Calendar, because the Popes make use of them in their Bulls. For, ever since *Charlemaign* invested the See of *Rome* with sovereign Power, the Pontiffs, who before made use of the Years of the Emperors, have chosen to date their Acts by the Year of the Indiction. At the Time of the Reformation of the Calendar, the Year 1582 was reckoned the tenth Year of the Indiction; whence by numbering back you will easily find, that the first Year of this Cycle is connected with the 3d before *Christ*; so that, by adding 3 to the given Year of *Christ's* Nativity, and dividing the Sum by 15, you will find the Year of the Indiction in the same manner as you did before that of the Lunar and Solar Cycles. I have only one Observation more to make before I quit this Doctrine of Cycles, and it is this: That, in the Language of Chronologers, the general Name of any Cycle is not only applied to the intire System of Years of which the Cycle consists, but also to every Year of the said System. Thus the 14th Year, for Instance, of the Solar Period is denominated indifferently either the 14th Year of the Solar Cycle, or the 14th Solar Cycle. In the like manner in the Lunar Revolutions; any Year, as the 5th, is called the 5th Year of the Lunar Cycle, or the 5th Lunar Cycle; and so for the Indiction. This Remark was necessary here, in order to prevent any Confusion or Perplexity that might afterwards arise from the promiscuous Use of these Terms in the Sequel of this Discourse.

P. I think I now pretty well understand the Nature and Formation of these Cycles; and therefore should be glad to be informed how they are applied in the Composition of that general Standard of Epochas which you some time ago made mention of.

G. That is what I am now to go upon; and, in order to proceed with the greater Clearness in a Matter of such Nicety and Importance, I must begin with observing, that, in the Language of Chronologers, as a Round or Revolution of Years makes what they call a Cycle, so a Round or Revolution of Cycles makes what they call a Period. And as there are various and manifold Compositions of Cycles in this Science, so are there of course various and manifold Periods. But I shall here confine myself wholly to the Consideration of the *Julian* Period; it being the most important in all Chronology, and what, if well understood, will render every other Part of this Science easy and familiar to you. This Period,  
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as I have before hinted, is compounded of the three Cycles already explained ; but, to enable you the better to understand the Origin, Frame, and Usefulness of it, take the following Observations.

If we suppose the three Cycles of the Sun, Moon, and Indiction to begin together, in such Manner that the first Year of the Solar Cycle be also the first Year of the Lunar Cycle and the first of the Indiction ; then, as the Cycle of Indiction terminates in 15 Years, and must begin anew, it is evident, that the 16th Year of this Series will be the 16th Year of the Solar and Lunar Cycles, and the first Year of the second Indiction. Again, as the Lunar Cycle revolves into itself after 19 Years, if you advance to the 20th Year of the Series you will have 20 for the Character of the Solar Cycle, 1 for that of the Lunar, and 5 for the Indiction. Proceeding on in this Manner, you will find every Year to exhibit different Cycles ; and if you continue the Progression till such time as Cycles return again in the same Order as when you first set out, that is, till the first Year of these three several Cycles coincide and fall together, you will find that this cannot happen till after an Interval of 7980 Years ; for then, and not sooner, will the same Order of Cycles return, and begin a second Period of the like Kind with the former.

This System of Years, comprehending all the possible Changes of these Cycles, may also more readily be found by multiplying the three Cycles continually into one another, viz. 28, 19, and 15 : For the Product thence arising must necessarily be the same with the aforesaid Period, as is well known to all who are acquainted with the Powers and Combinations of Numbers. What is particularly happy in the Constitution of this Period, and arises evidently from the Manner of generating it above described, is, that all the Years of it are distinguished by their peculiar Cycles ; insomuch that no one Year of the whole Period has the same Cycles with any other Year thereof. For we have seen that the same Order of Cycles does not return till the Period is elapsed, and a new one of the same Kind begins. By this means all the Years of this Period are accurately distinguished, so that, if the Cycles are duly marked, it is impossible to mistake one for another. This *Joseph Scaliger* observing, and how useful such a Measure of Time might be if applied to the Purposes of Chronology, thought of adapting the Years of it to the *Julian* Form, making them begin from the first Day of *January*, and thence gave it the Name of the *Julian* Period. The Cycles of which it was composed were also taken  
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according to the Manner and Computation in use among the *Latins*; and as, by their joint Consent, the first Year of the Christian *Æra* had 10 for the Character of the Solar Cycle, 2 for that of the Lunar, and 4 for the Indiction, which three Cycles correspond with no other Year of the *Julian* Period but the 3714<sup>th</sup>, he connected this very Year with the first of the vulgar Christian *Æra*, and thereby laid a Foundation for applying the whole Series of Time, both before and after this great Event, to the other Years of his celebrated Period.

Having thus explained the Nature, Origin, and Properties of this universal Measure of Time, I shall now proceed to shew how we are to apply it for the universal Purposes of Chronology. And in the first Place let me observe, that it affords a general and easy Rule for the finding the Year of any of the three Cycles. For as the first Year of the Period is also the first Year of every Cycle in it, by dividing any Year thereof by the Numbers composing the Cycles, *viz.* 28, 19, and 15, the respective Quotients will shew the Number of the Cycles elapsed from the Beginning, and the Remainders will be the Years of the several Cycles corresponding to the supposed Year of the Period. Thus, if it was required to find the Characters of the three Cycles for the 6482<sup>d</sup> Year of this Period, which answers to the present Year of our Lord 1769. Divide 6482, the given Year of the *Julian* Period, by 28 the Cycle of the Sun, and the Quotient gives the Number of Rounds of the Solar Cycle that have elapsed from the Beginning of the Period, and the Remainder is the present Year of the said Cycle. In like Manner, if you divide by 19, the Quotient will express the Rounds of the Lunar Cycle, and the Remainder will be the Golden Number. The same Method of proceeding, if you divide by 15, will serve for the Indiction. This Rule you see is easy, and saves you the Trouble of retaining particular Numbers in your Mind, as in those already given. It is also universal, and will serve for the Years before *Christ* as well as after, when once you know how to refer them to the *Julian* Period, as will be afterwards taught. Nor is this to be looked upon as an inconsiderable Advantage, because, by thus knowing how to find at any Time the Years of the Cycles, you can by the Help of the Calendar, and the other usual Tables, find the Dominical Letter, the New and Full Moons, with all the other Ecclesiastical Calculations depending thereon.

But I now proceed to what is my chief Design in this Explication of the *Julian* Period, *viz.* the connecting of it with  
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the several Epochas of History, that thereby we may be enabled to compare them together, and view the whole Current of Time in a regular successive Course. We have already seen that the first Year of the Christian *Æra* coincides with the 4714th of this Period, and that therefore 4713 Years of it were elapsed when the Epocha of *Christ's* Nativity began. If therefore to any Year of our Lord's Nativity we add 4713, that will be the Year of the *Julian* Period answering to the given Year of the *Christian* *Æra*. Now, as the Year of our Lord's Nativity is universally known and in common Use, nothing can be easier than this Connection; and, since it is usual among Christians to refer all other Epochas to this, the Manner of reducing them to the universal Period is equally obvious. I would know, for Instance, in what Year of the *Julian* Period the Epocha of the *Hegira* begins. This is a celebrated *Æra* in use among the *Mahomedans* and *Arabs*, which took its Rise on occasion of *Mahomed's* Flight from *Mecca*. The *Turks* make use of it in all their Computations of Time; and, to give it the greater Weight, have affixed to the Word *Hegira* a peculiar Signification, making it imply an Act of Religion, whereby a Man forsakes his Country, and gives Way to the Violence of Persecutors and Enemies of the Truth. Now the first Year of the *Hegira* coincides with the 622d of our Lord. Add this to 4713, and you have 5335, the Year of the *Julian* Period in which the Epocha of the *Hegira* begins. In like manner, if I would know in what Year of the *Julian* Period the *Norman* Conquest happened, this being an Epocha of great Note in *England*, to 1066, the Year of *Christ* answering to the said Conquest, I add 4713, and the Sum 5779 gives the Year required.

Thus you see that the reducing of the Years and Epochas after *Christ's* Nativity to the *Julian* Period is extremely easy. Those which precede it cost a little more Time, and require greater Accuracy of Calculation; it being necessary to ascertain the Year before *Christ's* Birth in which they begin, which often must be deduced from a long Train of Conclusions. However, the great Advantages of this Connection, when once made, abundantly atone for the Trouble of it, as it proves ever after a sure and infallible Guide in these Matters. Besides, the Calculations are already made to our Hands in Books writ on purpose, so that we have only to apply to them. Knowing therefore the Year before *Christ* in which any Epocha begins, if you subtract that from 4714, the

the Remainder will be the Year of the *Julian* Period, corresponding with the first of the said Epocha. And, having once connected the Beginning of the Epocha, it will be easy to connect its subsequent Years, as there is nothing more required to it but a bare Addition of these Years. To illustrate this Matter by an Example: The Olympiads began in the 776th Year before *Christ*, which, subtracted from 4714, leaves 3938 for the Year of the *Julian* Period. Again, *Rome*, according to the Chronology of Archbishop *Usher*, who founds his Computations upon the Authority of *Fabius Pictor*, was built in the 748th Year before the Nativity of our Lord. Now 748 taken from 4714, as before, leaves 3966, the Year of the *Julian* Period corresponding to that of the Foundation of *Rome*. In the same manner may any other Epocha of former Ages be connected with this universal Standard of Computation; and the great Advantage of such a Reduction is this, that we can thereby compare the several Epochas together, and determine coincident Times, and the coæval Transactions of different Nations, which, as I said before, is bringing the whole Train of past Events into one connected Series, and exhibiting them to the Mind in a distinct Order of Succession. For, knowing by the foregoing Calculation that the Olympiads began in the 3938th Year of the *Julian* Period, and that *Rome* was founded in the 3966th Year of the same, I see that, in the regular Course of Time, there is a Difference of about 28 Years between these two Epochas. When therefore I read in the History of *Greece*, that, during the 112th and 113th Olympiads, *Alexander* was pushing his Conquests in *Asia*, and carrying his Victories even into the Heart of *India*; and learn likewise from the *Roman* Historians, that about the Year of the City 420, *Sc. Papirius Cursor* was subduing the *Samnites*, and laying the Foundation of the *Roman* Greatness: observing the Times here nearly to coincide, and fall within about the same Years of the *Julian* Period, I thence gather, that, at the very Time *Alexander* was establishing the *Macedonian* Greatness in the *East*, an Empire was rising in the *West*, reserved by Providence to crush the Tyranny he was forcing upon Nations at the Expence of so much Blood and Treasure.

But, besides the comparing of Epochas, and determining the coincident Times of History, it is by the *Julian* Period alone that different Chronologers, who proceed upon different Computations, can understand one another. *Scaliger* supposes the World to have been created in the 3950th Year before *Christ*, and all his Calculations proceed upon this Hypothesis,

pothesis, in which he is followed by most of the *German* Writers. Archbishop *Usher*, on the other hand, whose Authority is of great Weight, throws the Year of the Creation back to the 4004th before the Christian *Æra*; and other Chronologers proceed upon other Suppositions. If therefore they computed only by the Years from the Creation, we could never understand their Calculations, nor the Reason of the Differences between them, till we first knew how many Years every Author reckoned from the Creation to the Birth of *Christ*; which multiple Inquisition would often be attended with much Trouble and Uncertainty. But, by annexing to the Years of the Creation the corresponding Years of the *Julian* Period, all these Difficulties are removed, and the different Hypotheses upon which Chronologers proceed lie in the most obvious Manner before us. Thus finding that *Usher* refers the Creation of the World to the 710th Year of the *Julian* Period, and *Scaliger* to the 764th, I see at once what different Suppositions they go upon, and, in reading their Works, can guide my Judgment accordingly.

I have only one Observation more to make upon the Advantages arising from the Use of this Period, and it is this; that as, with respect to past Transactions, it is thus a common Standard for comparing them together, and adjusting the different Suppositions about them; so, in regard to those that are to come, it may be made an infallible Criterion, to determine without a Possibility of Error the Years in which they happen. This will evidently be the Case, if, upon every remarkable Occurrence likely to make a Noise in future Ages, Chronologers take care to note the Character of the Cycles answering to the Year in which it falls out. For hereby it will be fixed to one determinate Year of the Period, in such Manner that no other Year in the whole can possibly belong to it. Nor is this to be esteemed a Matter of slight Consideration; inasmuch as the Want of such a Method of ascertaining Time has left us uncertain as to the true Year in which the City of *Constantinople* was taken by the *Turks*. One should think indeed that so important a Revolution would have made too great a Noise in the World, to suffer any the least Circumstance relating to it to pass unobserved; and yet we find that, while some place it in the Year of our Lord 1452, others strenuously contend, that it happened not till the Year after. Now had the *Julian* Period been known in those Days, Chronologers, by recording the Characters of the Cycles, would have so truly determined the Year, that no Dispute of this Kind could have arisen.

For



For, the Characters being given, the Year answering to these Characters may be easily found by the following Rule. Multiply the Character or Year of the Solar Cycle into 4845, that of the Lunar into 4200, and the Year of the Indiction into 6916. Add all these Products into one Sum, which divide by 7980, the Number of the *Julian* Period; and the Remainder, neglecting the Quotient, will be the Year you seek for. I know, for Instance, that the Year in which our Lord was born was the 10th of the Solar Cycle, the 2d of the Lunar, and the 4th of the Indiction, and would thence find the Year of the *Julian* Period answering thereto. In order to this, according to the foregoing Instructions, I multiply 10, the Character of the Solar Cycle, into 4845, and the Product thence arising is 48450. Again, I multiply 2, the Lunar Cycle, into 4200, and find the Product to be 8400. Lastly, I multiply 4, the Year of the Indiction, into 6916, and obtain 27664 for the Product. All these Products added together make 84514; and this Sum divided by 7980, gives 10 for the Quotient, with the Remainder of 4714. The Quotient, as I said before, is not considered in the present Question; but the Remainder expresses the Year of the *Julian* Period required: and that 4714 is the Year thereof answering to the Year of *Christ's* Nativity, we have seen above. For a second Example; the Year 1754 has 27 for the Character of the Solar Cycle, 7 for that of the Lunar, and 2 for the Indiction; to find thence the Year of the *Julian* Period. First, 27, the Solar Cycle, multiplied into 4845, gives 130815. Again, 7 the Lunar Cycle, multiplied into 4200, gives 29400. Lastly, by multiplying 2, the Year of Indiction, into 6916, we have 13832. Add all these Products into one Sum, and they make 174047. Divide this by 7980; and after the Division is finished, we have 6467 for a Remainder, which is the Year of the *Julian* Period answering to the present Year of the Christian *Æra*, as may be readily demonstrated, by adding 4713 to 1754, the Year of our Lord, according to the Directions given for that Purpose in a former Paragraph.

What I have said will, I believe, serve to give you a sufficient Knowledge of this celebrated Period, at least as far as common Use requires. The Numbers into which in the foregoing Question you multiply the Cycles, are founded upon Calculations too subtle and refined for you, as yet, to be able to trace them. But these and other Mysteries of the Science will unfold themselves gradually, in proportion as you advance in a Course of Study. There is one Thing

however



however worth while to attend to; that this Period, when traced to its Beginning, runs several hundred Years beyond the Creation. *Scaliger*, when he first invented it, might easily have accommodated its Years to the Years of the World. He had only to apply its first Year to the Year of the Creation, and then, computing the Cycles downward, shew what Years of these Cycles correspond to the Year when he introduced it. But such a Method would have had this Inconvenience attending it, that the Cycles of his Period would not have been the same with the Cycles then in use. He therefore thought it better to take the Cycles as he then found them settled in the Calendar of the *Latin* Church, and, tracing them backward through their several Combinations to the Year in which they all began together, there fixed the Beginning of his Computation, which was by this means carried up several hundred Years beyond the Creation of the World. Now this Method is not only best suited to Practice and common Use, as the Cycles of the Period are the same with those of the Calendar, but it has also this Advantage, that thereby we can with greater Ease adjust the different Opinions of Chronologers. For, almost all of them proceeding upon different Systems, and varying in their Account of the Years between the Creation and the Birth of *Christ*, it so happens that most of these Computations, especially such as are in use among the Western Christians, fall within the Years of the *Julian* Period; so that, by reducing them to it, we have (as was before shewn) an easy Way of comparing them together, and adjusting them one to another.

*P.* I suppose now that you have explained the *Julian* Period, and conducted me through all the several Measures of Time, you will next, according to the Plan laid down at your first setting out, shew how this Chronological Knowledge may be most usefully applied to the Purposes of History.

*G.* It is indeed necessary that you should have some general Knowledge of the Succession of Ages, and the most remarkable Transactions that have happened in the World; and these, if laid before you in a just and orderly Manner, will serve to conduct you through all the Labyrinths of History. You may remember I told you, that Chronology was fitly divided into two Branches; one comprehending the several Divisions and Periods by which Time is measured, and the other treating of the various Epochas to which different Nations refer in their Computations. It is the second of these that now falls under our Consideration; and as I have already explained that general Measure of Time, to which as a Stan-

dard all other *Æras* may be referred, I shall take care, in tracing out the particular Epochas, to annex the Years of the *Julian* Period, in order to give you a distinct View of the Succession of Time, and enable you to compare this general Draught with such other Computations as may afterwards fall in your Way. If we consider Time as running forward in a continued Train of several thousand Years from the Creation of the World to the Birth of *Christ*, and were to take an Account of the History of Mankind during that long Interval; it is evident, that our narrow Minds are by no means able to comprehend distinctly the Transactions of so many Ages, or view them in a due Order of Succession, unless we begin by dividing this large Period into several lesser Spaces and Intervals. For the Occurrences that happen within each of these will be then more easily retained, and may be afterwards united by the Mind into one general Plan. Such a Division as that I am speaking of, does the Consideration of Epochas afford. For they being certain fixed Points of Time, distinguished by some memorable Event, the Mind considers them as convenient Resting-places, from whence to take a View of whatever has fallen out remarkable before or since. Now the Epochas of ancient History being all removed from one another by a greater or lesser Term of Years, the several intervening Periods may be very naturally considered as so many Subdivisions of the general Course of Time. It should therefore be the first Care of one who applies to the Study of History, to get a distinct Notion of these Intervals, that is, of the Spaces of Time between Epochas and Epochas; and at the same time to acquaint himself with the most remarkable Transactions that have happened during every Period in Order. For thus he presents the Mind at once with a general Plan of the whole Body of ancient History, and, disposing past Events in a regular Series, by this Means avoids Perplexity and Confusion.

*P.* I understand you. As, in studying the Geography of any Nation or Kingdom, we first get acquainted with its general Regions, and then, fixing upon some remarkable Cities in each of these, dispose of the other Towns round them, every one according to its Distance; that the Mind, by proceeding thus from Province to Province, may take a progressive View of the whole Country, and comprehend it in all its Parts: Such must be the Method of History. We must divide it into certain Parts and Intervals, each beginning with some memorable Occurrence; and then, getting acquainted with the most remarkable Transactions of every Period, dis-

pose of the other Events before or after them, according as they fall out in the Train of History.

G. It is so; and, in order to avoid Confusion, it is necessary at first to confine ourselves to a moderate Number of Divisions, which, when well digested, may be afterwards subdivided into what lesser Periods we please. As it is my Design to lay before you a short View of ancient History from the Creation of the World to the Birth of *Christ*, and to proceed in it according to the Plan laid down above, I shall divide that whole Interval into ten Parts. The first takes in the Duration of the old World, or from the Creation to the Deluge, which includes one thousand six hundred and fifty-six Years. The second reaches from the Deluge to the Vocation of *Abraham*, and takes in four hundred and twenty-six Years. The third, from the Vocation of *Abraham* to the Departure of the Children of *Israel* out of *Egypt*, comprehends four hundred and thirty Years. The fourth, from the Departure out of *Egypt* to the Destruction of *Troy*, includes three hundred and eight Years. The fifth, from the Destruction of *Troy* to the laying the Foundation of the Temple under *Solomon*, takes in an hundred and seventy-two Years. The sixth, from the Foundation of the Temple to the Building of *Rome*, includes two hundred and fifty-eight Years. The seventh, from the Building of *Rome* to *Cyrus*, comprehends two hundred and eight Years. The eighth, from *Cyrus* to the Overthrow of the *Persian* Empire by *Alexander the Great*, contains two hundred and six Years. The ninth, from the Fall of the *Persian* Empire to the Defeat of *Perseus*, when *Rome* became the Mistress of the World, takes in an hundred and sixty-two Years. The tenth and last, from the Destruction of the Kingdom of *Macedon* under *Perseus*, to the Beginning of the Christian *Æra*, includes about an hundred and sixty-eight Years. You see that each of these Divisions begins with some celebrated Epochæ. I shall go through them one after another; and not only give an Abstract of the History of each, but also, as I proceed, take notice of such other *Æras* as have been of principal Note in ancient Times. This will give you an exact View of the Succession of Ages, accustom you to range Events according to the regular Train of their Years, and present you with what one may call a general Map of ancient History. After this, you may apply to any particular Part of it with Advantage. The great Empires will lie open before you. Facts may be traced in all their Consequences; and the whole Chain of human Affairs, with its various Connections and Dependencies, be pursued with Ease and Pleasure.

P. Begin



P. Begin therefore; for the Prospect is so fair and inviting, that you are not to wonder if I discover some Impatience to be farther engaged in so agreeable a Scene.

G. The first Epocha opens with a Display of Almighty Power. God creates the World out of nothing, and pours upon it a Profusion of Ornaments, that it may be an agreeable Habitation for Man, who stands in the first Rank of Beings here below. This great Event is placed by Archbishop *Usher*, whose Chronology we choose to follow, in the 710th Year of the *Julian* Period, and the 4004th before *Christ*. Here *Moses* the great Lawgiver of the *Jews* begins his History, and presents us with the original Pair in a State of Innocence and Perfection, adorned with the Image of their Maker, and exercising Dominion over the Creatures. This is the Period so much celebrated by the Poets under the Name of the Golden Age. But, alas! it was of short Continuance. *Eve* seduced, and *Adam* joining in Offence, experience a fatal Reverse of Fortune, and are forced to quit the delightful Abode of Paradise.

The Earth begins to be peopled, and the Corruption of human Nature discovers itself. *Abel* is murdered by his Brother *Cain*; but Punishment follows close upon the Offence. We see the Criminal suffering under the Reproaches of his own

*Years of the  
World.*

130.

Conscience, and retiring from the Commerce of Men, whose Hatred he had justly incurred. By him the first City is built, and among his Posterity we meet with the first Beginnings of Arts. Here we see at the same time the Tyranny of the human Passions, and the prodigious Malignity of the Heart of Man. The Posterity of *Seth* withstand the general Torrent, and continue faithful to God. 987.

*Enoch* is miraculously taken up into Heaven, as a Reward for his upright Walking with his Maker. The Posterity of *Seth* intermarrying with the Descendants of *Cain*, or, in the Language of Scripture, the Sons of God going in unto the Daughters of Men, an universal Corruption ensued. God, no longer able to bear with the Wickedness of Men, resolves upon their Destruction, and makes known his Purpose by the Mouth of his

1536.

Servant *Noah*; but they continuing hardened in their Iniquities, the Earth is covered with a Deluge of Water, and all Mankind cut off, *Noah* and his Family excepted. This happened in the 1656th Year of the World, and the 2366th of the *Julian* Period. It

1656.

is worth observing, that, as the Deluge was uni-



versal, so the Tradition of it has obtained amongst all Nations. Nothing is more celebrated in the Writings of the Poets, nor can any Event of equal Antiquity boast of so many concurring Testimonies to support it. Not that sacred History derives any additional Strength from such foreign Recommendations; but the Mind is pleased to see Truths, in which it takes a real Interest, confirmed by the Annals of Nations who had not any such Motives to engage their Belief of them.

P. Here, as I remember, ends your first Period of ancient History. And indeed the Deluge very naturally offers a new Epocha. The re-peopling of Nations, after so general a Destruction, looks like a second World rising out of the Ruins of the former. Proceed therefore, and give some Account of the Affairs of this new People.

*Years of the  
World.*

2 Epocha.  
*The Deluge.*

1756.

G. To the Times following after the Deluge we must refer some considerable Changes in the ordinary Course of Nature. So universal a Shock doubtless caused great Alterations in the Atmosphere, which now took a Form not so friendly to the Frame and Texture of the human Body. Hence the Abridgment of the Life of Man, and that formidable Train of Diseases which have ever since made such Havock in the World. The Memory of the three Sons of Noah, the first Founders of Nations, has, we find, been preserved among the several People descended from them. *Japhet*, who peopled the greatest Part of the West, continued long famous under the celebrated Name of *Japetus*. *Ham* was revered as a God by the *Egyptians* under the Title of *Jupiter Hammon*. And the Memory of *Shem* has ever been held in Honour among the *Hebrews* his Descendents. The first considerable Dispersion of Mankind was occasioned by the Confusion of Languages, sent among them by God, upon their engaging in a vain Attempt of building a Tower, whose Top might reach to Heaven.

1757.

As the Earth, after the Deluge, was over-run with Woods, which became the Haunts of wild Beasts, the great Heroism of those Times consisted in clearing the Ground, and extirpating these savage Monsters, that held Mankind under continual Alarms, and hindered them from enlarging their Habitations. *Nimrod*, acquiring great Reputation in this Way, is thence called by *Moses* a mighty Hunter before the Lord. As his Enterprizes of this Kind soon made him considerable, and naturally tended to rouse Ambition in the Heart of Man, we find him aiming at Dominion over his Fellow-Creatures, and establishing his

his Authority upon Conquest. Such was the first Beginning of Kingdoms. *Nimrod* founded his at *Babylon*, where the vain Attempt to build the famous Tower had been made. Much about the same Time the Foundations of *Nineveh* were laid, and several other ancient Kingdoms established. They were but of small Extent in their first Beginning, as is easy to suppose. In *Egypt* alone we meet with four Dynasties or Principalities; *Thebes*, *Thin*, *Memphis*, and *Tanis*. To this Age also we may refer the Origin of the *Egyptian* Laws and Policy. Already they began to distinguish themselves by their Astronomical Knowledge, which was also cultivated with no less Ardour among the *Chaldeans*; for so far back did their Observations of the heavenly Bodies reach, according to the Accounts sent from *Babylon* to *Aristotle* by *Calisthenes* the Philosopher. You will readily suppose, that if the speculative Sciences began by this Time to be cultivated, those practical Arts that tend to the Ease and Accommodations of human Life would not lie neglected. *Noah* had doubtless preserved all the Inventions of the old World; but, as the Face of Nature was considerably altered by the Deluge, new Contrivances must be adapted to their present Circumstances. Hence Agriculture, Architecture, and the Art of polishing Mankind, are found to have flourished very early in the Western Parts of the World, where *Noah* and his Descendants first settled. In proportion as we remove from them, we meet with nothing but Barbarity and a savage Wildness. Even *Greece* itself, which led the Way in Arts and Sciences to the other *European* Nations, was wholly unacquainted with the most necessary Concerns of human Life, till Strangers arriving from the Eastern Countries brought along with them the Knowledge of those more improved Nations. But though Arts and Sciences thus flourished in the East, the Knowledge of the true God seems to have decayed very early. Tradition introduced many absurd Notions into Religion, and made Way for those gross Ideas of the Deity that soon overspread the World. The Number of false Divinities multiplied exceedingly; and this was what gave Occasion to the Vocation of *Abraham*.

This happened about four hundred and twenty-six Years after the Deluge, and in the 2793<sup>d</sup> Year of the *Julian* Period. For then it was that the several Nations of the Earth walking after their own Ways, and forgetting him that made them; God, to hinder in some measure the Progress of this universal Depravation, resolved to separate for himself a chosen People. *Abraham* was called to be the

Years of the  
World.

3 Epocha.  
The Vocation  
of Abraham.  
2083.

Father

Father of this distinguished Race. God appeared to him in the Land of *Canaan*, where he purposed to establish his Worship, and the Posterity of that eminent Patriarch, whom he promised to multiply as the Stars of Heaven, and the Sand upon the Sea-shore. It is remarkable of this Fa-

2092. ther of the chosen Nation, that, though abounding in Wealth, and possessed of a Power which had

proved an Over-match for that of several Kings united, he yet adhered to the Manners of ancient Times, and, contented with the Simplicity of a pastoral Life, discovered his Magnificence no otherwise than by the most unbounded and extensive Hospitality. It was in his Time that *Inachus*, the

2148. most ancient of all the Kings mentioned in the History of *Greece*, founded the Kingdom of *Argos*.

After *Abraham*, we read of *Isaac* his Son, and *Jacob* his Grandson, who no less distinguished themselves by a Simplicity of Manners and steady Faith in God. Nor did they miss of the Reward due to their Piety. The same Promises were renewed to them, and they equally experienced the Favour and Protection of Heaven. *Isaac* blessed *Jacob*, to the Prejudice of his

2245. elder Brother *Esau*, and, though deceived in Appearance, only fulfilled the Council of God. *Esau* is also mentioned in Scripture by the Name of

*Edom*, and was the Father of the *Idomeans*, of no small Note in History. To *Jacob* were born the twelve Patriarchs, Fathers of the twelve Tribes of *Israel*. Among them *Joseph* holds a distinguished Place. The Train of Accidents by which he became first Minister to the King of *Egypt* plainly speaks the immediate Interposition of Providence, which was the preparing for the Accomplishment of the Promises made to *Abraham*. For to this was owing the Settlement of *Jacob's* Family in that Part of *Egypt* of which *Tanis* was the Capital, and where the Kings took all the Name of *Pharaoh*. *Jacob*, a

2315. little before his Death, calling his Children together, made that celebrated prophetic Declaration of the future State of their Posterity, in which he particularly discovered to *Judah* the Time of the *Messiah*, and that he was to issue from his Loins. The Family of this Patriarch became in a short Time a great People, insomuch that the Jealousy of the *Egyptians* being roused by so amazing an

2433. Increase, they began to lay them under heavy Oppressions. At length God sends *Moses* into the World, delivers him from the Waters of the *Nile*, and makes him fall into the Hands of *Pharaoh's* Daughter,

who



who educates him as her own Son, and instructs him in all the Learning of the *Egyptians*. About this Time the People of *Egypt* sent out Colonies into several Parts 2448. of *Greece*. That of *Cecrops* founded twelve Cities or rather Villages in *Attica*, of which was composed the Kingdom of *Athens*, where the *Egyptian* Laws and Religion were introduced by the Founder. Not long after happened that famous Flood in *Thessaly* under *Deucalion*, which the *Greek* Poets have confounded with the universal Deluge. *Hellen*, a Son of this *Deucalion*, reigned afterwards in *Thessaly*, and gave his Name to *Greece*. Much about the same Time, *Cadmus* the Son of *Agenor* came with a Colony of *Phœnicians* into *Bœotia*, and founded the ancient City of *Thebes*. *Moses* in the mean time advanced in Years, and, being 2473. driven from the Court of *Pharaoh* because he opposed the Persecution of his Brethren, fled into *Arabia*, where he fed the Flocks of his Father-in-law *Jethro* forty Years. It was here that he saw the Vision of the burning Bush, and heard the Voice of God calling to him 2513. to go and deliver his Brethren from the Slavery of *Egypt*. He obeyed the Divine Admonition, and wrought all those Wonders in the Court of *Pharaoh*, of which we have so full an Account in Holy Writ. And this brings us to the 4th Period of our History.

P. Let me interrupt you here a Moment, now that we are got among the *Egyptians*, who seem by this Time to have been a powerful People. I have heard much of their wise Constitutions, their great Knowledge in the Sciences, their Pyramids, Obelisks, Temples, and other illustrious Monuments of Wealth and Grandeur. Were they arrived at this Degree of Eminence among Mankind in the Age we are speaking of?

G. In a great measure they were. It is said of *Moses*, by way of Commendation, that he was instructed in all the Learning of the *Egyptians*. You have seen them sending abroad Colonies, civilizing barbarous Nations, and introducing among them the Constitutions of a just Policy. These are Proofs sufficient both of their Power and Wisdom. Many of their amazing Works, as the Labyrinth, the Lake of *Mæris*, &c. are indeed of later Date; yet it is certain that the Pyramids were built before the Times we are speaking of. Nor is the Opinion of some learned Men, that the *Israelites* during their Oppression were employed in this Service, altogether without Foundation; more especially when we consider the Nature of the Slavery under which they groaned,



which evidently refers to the carrying on of some considerable Designs in Architecture. But to return to our History.

Years of the  
World.

4 Epocha.

The Departure  
out of  
Egypt.

In the 856th Year after the Deluge, the 430th from the Vocation of *Abraham*, and the 3223d of the *Julian Period*, *Moses* led the Children of *Israel* out of *Egypt*, and received the Law from God himself upon Mount *Sinai*. In his Progress thro' the Wilderness to the Land of *Canaan*, he instituted,

2513. by God's Appointment and Direction, the whole Tabernacle Service. We find him also establishing a Form of Civil Government among the Tribes, in the framing of which he was assisted by the Counsel of his Father-in-law *Jethro*. During these Transactions in the Wilderness, the *Egyptians* continued sending out Colonies into divers Nations,

2530. particularly *Greece*, where *Danaus* found Means to get Possession of the Throne of *Argos*, driving out the ancient Kings descended of *Inachus*.

2553. Upon the Death of *Moses*, *Joshua* succeeded, who began and nearly compleated the Conquest of *Canaan*. After him we meet with a Succession of Judges. Unhappily the *Israelites*, after the Death of the Elders that knew *Joshua*, forgot the God of their Fathers, and were seduced into the Idolatry of the bordering Nations. This drew down heavy Chastisements from above, and they were sold into the Hands of cruel Oppressors. But when in their Distress they called upon God, he failed not from time to

time to raise up a Deliverer. Thus *Othniel* put an End to the Tyranny of *Cushan King* of *Mesopotamia*, and 80 Years after *Ehud* delivered them

2679. from the Oppression of *Eglon King* of *Moab*.

Much about this Time *Pelops* the *Phrygian*, the Son of *Tantalus*, reigned in *Peloponnesus*, and gave his Name to that famous Peninsula. *Bel* or *Belus*, King of the *Chaldeans*, received from his People Divine Honours. The *Jews*, enslaved or victorious according as they honoured or forsook their God, experience many Vicissitudes of Fortune, as may be seen in the Histories of *Deborah* and *Barak*, of *Gideon*, *Abimelech*, *Jephthah*, &c. This Age is considerable for many great Revolutions among the Heathen Nations. For, according to the Computation of *Herodotus*, who seems the most exact and

worthy of Credit, we are here to fix the Foundation of the *Assyrian Empire* under *Ninus* the Son of *Belus*, 520 Years before the Building of *Rome*, and in the Time of *Deborah* the Prophetess. He established the Seat of it at *Nineveh*, that ancient City, already famous

over all the East, but now greatly beautified and enlarged by him. They who allow 1300 Years to the first *Assyrian* Empire, run up nearly to the Times of *Nimrod*, founding their Supposition upon the Antiquity of the City. But *Herodotus*, who gives it only 520 Years, speaks of its Duration from *Ninus*, under whom the *Assyrians* extended their Conquests over all the *Upper Asia*. Under this Conqueror we are to place the Founding, or rather Rebuilding, of the ancient City of *Tyre*, which afterwards became so famous by its Navigation and Colonies. Here too, or very soon after, probably in the Time of *Abimelech*, come in the famous Exploits of *Hercules* the Son of *Amphytrion*, and of *Theseus* King of *Athens*. This last united the Twelve Districts of *Attica* into one large City, and gave a better Form to the *Athenian* Government. In the Reign of *Semiramis*, so famous for her Conquests and magnificent Works, and while *Jephthah* judged *Israel*, *Troy*, which had been already once taken by the *Greeks* in the Time of *Laomedon*, was a second Time taken and reduced to Ashes by the same *Greeks*, in that of *Priam* the Son of *Laomedon*, after a Siege of ten Years.

This Epocha of the Destruction of *Troy*, Years of the  
World.  
which happened about 308 Years after the Departure out of *Egypt*, and in the 3530th Year of the *Julian* Period, is considerable, not only on 5. Epocha.  
The taking of  
Troy.  
account of the Greatness of the Event, celebrated by so many famous Poets both *Greek* and *Latin*, 2820.  
but also because it furnishes a proper Date in taking Account of the fabulous and heroic Times. These Ages of Fiction and Romance, where the Poets place their Heroes the Offspring of the Gods, are not very remote from the *Æra* we are speaking of. For in the Time of *Laomedon* the Father of *Priam* appeared all the Worthies concerned in the Expedition of the *Golden Fleece*, *Jason*, *Hercules*, *Orpheus*, *Castor*, *Pollux*, &c. and even in the Age of *Priam* himself we see *Achilles*, *Agamemnon*, *Menelaus*, *Hector*, *Ulysses*, *Diomedes*, *Sarpedon* the Son of *Jupiter*, *Aeneas* the Son of *Venus*, whom the *Romans* acknowledged for their Father and Founder, with many others, the Boasts of Nations, and the Pride of the most renowned Families. Round this Epocha therefore we may gather what is most illustrious and great in the heroic Times. But the Transactions of Holy Writ during this Period are yet more astonishing. The prodigious Strength of *Samson* and his amazing Exploits, the Administration of *Eli*, *Samuel* the chosen Prophet of God, *Saul* the first King of *Israel*, his Victories, Presumption, and unhappy Fall, are Events that  
may

may well raise our Wonder and Admiration. About this Time *Codrus* King of *Athens* devoted himself to Death for the Safety of his Country. His Sons *Medon* and *Nileus* disputed about the Succession; whereupon the *Athenians* abolished the Regal Power, and created perpetual Governors, or Magistrates for Life, but answerable for their Conduct, who were distinguished by the Name of *Archons*. *Medon* the Son of *Codrus* was the first who exercised that Office, and it continued a long Time in his Family. To this Age we must also refer the Settlement of several *Athenian* Colonies in that Part of *Asia Minor* called *Ionia*. The *Eolian* Colonies settled there much about the same Time, and all *Asia Minor* was covered with *Greek* Cities. In the Kingdom of *Israel*,

2949. *Saul* was succeeded by *David*, who at first was acknowledged as King by the House of *Judah* only; but, upon the Death of *Ishbosheth*, all the Tribes owned his Authority. He proved a valiant and fortunate Prince, greatly enlarged his Dominions, and advanced the *Israelites* to a Degree of Wealth and Power far exceeding any thing they had known before. But, what is still more, he was the distinguished Favourite of Heaven, and is stiled in Scripture a Man according to God's own Heart. To this pious Warrior succeeded *Solomon*, famed for his Wisdom, Justice, and pacific Virtues; whose Hands, unpolluted with Blood, were declared worthy to raise a Temple to the Most High.

Years of the  
World.

6 Epocha.  
The Temple.

2992.

It was in the 3702d Year of the *Julian* Period, the 480th after the Departure out of *Egypt*, and, to connect sacred History with prophane, 72 Years after the Taking of *Troy*, and 264 before the Building of *Rome*, that *Solomon* laid the Foundations of the Temple. The other Particulars of his Reign are fully recorded in Holy Writ, where he appears at once an Instance of all that is great and little in human Nature. Under his Son *Rehoboam*, *Israel* was parted into two

3029. Kingdoms; one called by the way of Distinction the Kingdom of *Israel*, and consisting of the ten Tribes who associated under *Jeroboam*; the other, known by the Name of the Kingdom of *Judah*, composed of such as adhered to the House of *David*. The Kings of *Egypt* seem at this Time to have been very powerful; and many are of Opinion, that the *Shishak* of Scripture, whom God made use of to punish the Impieties of *Rehoboam*, is the same with that famous Conqueror so renowned in prophane History under the Name of *Sesostris*. In the Reign of *Abiah* the Son of *Rehoboam* we see the Piety



of that Prince rewarded with a memorable Victory over the revolted Tribes. In the Time of *Asa* his Son and Successor, *Omri* King of *Israel*, built *Samaria*, which thenceforth became the Capital of that Kingdom. Next follow the pious Reign of *Jehosaphat* in *Judah*, and the Idolatry and Impieties of *Ahab* and *Jezebel* in *Israel*, with the signal Vengeance of Heaven for the Blood of *Naboth*. About this Time we are to place the Foundation of *Carthage* by *Dido*, who transporting a Colony of *Tyrrians* into *Africa*, chose a Place for her new City conveniently situated for Traffick. The Mixture of *Tyrrians* and *Africans* contributed to the making it both a warlike and a trading City, as will appear in the Sequel. *Judah* and *Israel* were in the mean time the Scene of amazing Revolutions and Wonders. *Jehoram*, by marrying the Daughter of *Ahab*, was seduced into the Idolatry of that wicked Family, and drew down upon himself the Vengeance of Heaven. *Jehu* takes Possession of the Throne of *Israel*, and destroys the whole Posterity of *Ahab*. *Jehoram* King of *Judah*, and *Ahaziah* his Son, with the greatest Part of the Royal Family, are all slain about the same Time, as Allies and Friends of the House of *Ahab*. *Athaliah*, upon hearing this News, resolves utterly to extinguish the House of *David*; and, putting to Death all that remained of that Family, even to her own Children, usurps the Crown of *Judah*. But *Joash*, preserved by the Care of *Jehoshebah* his Aunt, and brought up privately in the Temple by *Jehoiada* the High-priest, after six Years put an End to the Usurpation and Life of *Athaliah*. During all this Time, *Elijah* and *Elisha* were working those Wonders and Miracles in *Israel* which have made their Names so famous in Holy Writ. Let us now look abroad a little into prophane History, which begins to furnish more ample Materials, and entertain us with the gradual Rise of those *Grecian* Commonwealths that made so great a Figure in ancient Times: For during the Period we are speaking of, according to the most received Opinion, flourished *Lycurgus* the famous *Spartan* Lawgiver. The Bounds I have prescribed myself in this Discourse will not allow of my laying before you a Scheme of those admirable Institutions which rendered *Lacedæmon* the most powerful and illustrious City of *Greece*: You can read them at large in the Histories of those Times. I shall only observe, that, as it was the chief Aim of this Lawgiver to banish Luxury and Avarice, and introduce a warlike Spirit among the People, nothing could be more happily contrived

for



for this Purpose, than his equal Distribution of the Lands of the Commonwealth, his Prohibition of all Gold and Silver Coin, and that laborious temperate Kind of Life, habituated to the Exercises of War, in which every Citizen was trained up from his Infancy. In a Word, it is Commendation enough to say, that while *Sparta* adhered to the Establishments of *Lycurgus*, she was invincible in herself, and respected by all the World. Some time before *Lycurgus*, flourished *Homer* and *Hesiod*, the two renowned *Grecian* Poets. We see in their Works the amiable Simplicity of those ancient Times; and though History has left us very much in the Dark as to the early Ages they describe, yet it is abundantly plain from their Writings, that the *Greeks* were by this Time a powerful People, and had made considerable Advances in all the different Branches of human Learning. In *Judab*, *Joash*, during the Life of *Jehoiada*, ruled the People with Wisdom and Justice; but after the Death of that great Man he became a very Tyrant, insomuch that he ordered

3164. *Zechariah* the High-priest, the Son of his Benefactor, to be stoned to Death. But Heaven did not long defer Vengeance for this Act of Perfidy and Ingratitude. The Year following, being beaten by the *Syrians*, he fell into Contempt, and was slain by his own Servants. *Amaziah* his Son succeeded him in the Throne. Mean while the Kingdom of *Israel*, which had been greatly weakened under the Successors of *Jehu*, by its almost continual Wars with the Kings of *Damascus*, began to recover and flourish by the wise and vigorous Administration of *Jeroboam* the second, who exceeded in Piety and Valour all that had gone before him. Nor did
3194. *Uzziah* or *Azariah* the Son of *Amaziah* acquire less Glory in *Judab*. In the 34th Year of his
3228. Reign begins the famous Computation by the *Olympiads*, of which we have already spoken in our Chronology. It is celebrated in History, not only as being the great Epocha of the *Greeks*; but also, because here, according to *Varro*, the fabulous Times end. They are so named on account of the many Fables which the Poets have interwoven with the Transactions they describe, insomuch that it is almost impossible to distinguish Truth from Falseness.

P. Now that you speak of *Varro* and his Distribution of Time, I should be glad you would give me some Account of it; because I remember to have seen it several Times referred

ferred to, and was at a Loss, as not well knowing what it meant.

*G. Varro* divided the whole Series of Time into three Periods. The first extended from the Creation of the World to the Deluge, and is by him called the unknown Age, there being nothing in profane Historians relating to that Time which has any Appearance of Truth. The second Period reached from the Deluge to the first Olympiad, and this is what he stiled the fabulous, for the Reasons mentioned above. The third and last, beginning with the first Olympiad, was carried down to the Age in which that Author wrote, and may by us be extended to the present Times. He calls it the historical Period, because henceforward the Transactions of Mankind are handed down to us by faithful and authentic Relations; so that the Olympiads, while they constitute the great Epocha of the *Greeks*, are at the same time to be considered as the *Æra* of true History. However, this holds only in respect of the Transactions of the Heathen World, inasmuch as Holy Writ furnishes a true and authentic Relation of the Affairs of the chosen People, from the Times of *Abraham* the Father and Founder of the *Jewish* Nation; and has even traced Things back, in a general Summary, to the first Formation of the Universe. By this means I have been enabled to lay before you a just Account of the Progress of human Affairs; and, deducing History from its Source, have preserved the Chain of Ages unbroken, and disposed of the scattered Fragments of profane History, according to the true Places they ought to possess in the general Course of Time. Sacred History is very soon going to leave us; but we may esteem it a Happiness, that, having conducted us with Certainty thus far, we are arrived at a Period where the Relations of other Writers may be depended on. Thus the Thread of History is continued, we see Ages succeeding one another in a connected Series, we can pursue the Affairs of Mankind in a just and orderly Progression, from their first Original, to the Times in which we live. But to return whence we digressed. *Azariah* was succeeded in the Kingdom of *Judah* by his Son *Jotham*, who proved a wise and pious Prince. *Israel* mean while was torn with intestine Divisions. *Shallum* had slain *Zachariah* the Son of *Jeroboam*, and usurped the Crown; which inspiring *Menahem* with Hopes of gratifying his Ambition by the like Means, he conspired against the Usurper, and served him as he had done his lawful Prince. *Pul* was at this Time King of *Assyria*, who, taking Advantage of these Distur-

3233.

bances

bances in *Israel*, advanced against it with an Army. But *Menahem* found means to satisfy him by a Present of a thousand Talents. Archbishop *Usher* conjectures this *Pul* to have been the Father of *Sardanapalus*, imagining that Name to imply as much as *Sardan* the Son of *Pul*. It was in the Reign of this *Sardanapalus* that the *Athenians*, whose Disposition was pushing them on insensibly to a popular Government, upon the Death of *Alcmeon*, the last of their perpetual Archons, retrenched the Powers of these Magistrates, and limited their Administration to ten Years. *Charops* was the first who held this Dignity under these Restrictions. But we must now turn our Eyes towards *Italy*, and take a View of the first Beginnings of that Empire, which is in time to swallow up all the rest, and spread its Victories to the remotest Regions of the known World. After the Destruction of *Troy*, *Aeneas*, gathering together the few Remains of his unhappy Countrymen, sailed for *Italy*; where marrying the Daughter of King *Latinus*, he succeeded him in the Throne, and left it to his Posterity. This Race of *Latin* Kings held the Sovereignty for upwards of three hundred Years; nor do we read of any remarkable Revolution till the Time of *Numitor* and *Amulius*. But then *Amulius* seizing upon the Crown, to the Prejudice of his elder Brother *Numitor*, remained possessed of it till *Romulus* and *Remus* the Sons of *Ilia*, *Numitor's* Daughter, arriving at Manhood, restored their Grandfather to his Inheritance, and slew the Usurper.

Years of the  
World.

7 Epochæ.  
The Building  
of Rome.

3250.

This Revolution was followed soon after by the Building of *Rome* in the Reign of *Jotham* King of *Judah*. Historians are not agreed as to the precise Year of this Event. The Computation of Archbishop *Usher*, founded on the Authority of *Fabius Pictor*, places it a little before the Beginning of the eighth Olympiad, in the 3966th Year of the *Julian* Period. This I take it was the true Year of the Foundation of *Rome*. But, as *Varro's* Account is now almost universally followed, to prevent a Disagreement between this Tract and those other Histories that are most likely to fall in your Way, I shall proceed upon his Hypothesis, which fixes it to the 3d Year of the 6th Olympiad, that is, in the 3960th Year of the *Julian* Period, 430 Years after the Destruction of *Troy*, and 753 before the Beginning of the Christian *Æra*. The *Romans* (according to *Plutarch* and others) began to build on the 21st of *April*. This Day was then consecrated to *Pales*, Goddess of Shepherds; so that the Festival of *Pales* and that of the Foundation of the City were afterwards jointly celebrated



brated at *Rome* on the same Day. This *Æra*, so remarkable in History, as serving the best of any to direct us in regulating our Accounts of the Western and *European* Nations, is removed but a few Years from another of no less Note in the Eastern Chronology. For about six Years after the Building of *Rome*, according to the Computation of *Varro*, happened the Downfal of the *Assyrian* Monarchy, occasioned chiefly by the Effeminacy of *Sardanapalus*. This Prince, neglecting wholly the Administration of public Affairs, and shutting himself up in his Palace amongst his Women and Eunuchs, fell into Contempt with his Subjects; whereupon *Arbaces* Governor of *Media*, and *Belesis* Governor of *Babylon*, conspiring against him, besieged him in his Capital, and reduced him at last to the Necessity of perishing miserably with his Wives and Eunuchs in the Flames of his own Palace. Upon the Dissolution of this mighty Empire, there arose two others in its stead, founded by the two Leaders of the Conspiracy. *Belesis* had *Babylon*, *Chaldea*, and *Arabia*; and *Arbaces* all the rest. *Belesis* is the same with *Nabonassar*, from the Beginning of whose Reign at *Babylon* commenceth the famous Astronomical *Æra* I am speaking of, from him called the *Æra* of *Nabonassar*. For this *Æra* we are beholden to *Ptolemy's* Canon, which, beginning with *Nabonassar*, carries down the Succession of the *Babylonian* Kings, and afterwards of the *Persian* and *Macedonian*, quite beyond the Birth of *Christ*. This Canon is a sure Guide in regard to the Eastern Chronology, and comes in the most opportunely that can be imagined for the connecting of sacred and profane History. For, as it commenceth several Years before the *Babylonish* Captivity, by which the Course of the *Jewish* History is interrupted, we can here take up the Series, and continue down the Account of Time with Certainty to the Beginning of the Christian *Æra*. The first Year of *Nabonassar* coincides with the seventh Year of *Rome*, the second of the 8th Olympiad, the 747th before *Christ*, and the 3967 of the *Julian* Period. In the mean time *Abaz*, having succeeded his Father *Jotham* in the Kingdom of *Judah*, was attacked by *Rezin* King of *Syria*, and *Pekah* King of *Israel*; whereupon applying to the King of *Assyria*, who is in Scripture called *Tiglath-Pileser*, he readily obtained his Assistance. This *Tiglath-Pileser* is by some conjectured to be the same with *Arbaces* the *Mede*; but the more probable Opinion is, that he was of the Royal Family of *Assyria*, his Name *Tiglath-Pul-Assar* having a plain Resemblance of *Pul* and *Sardan-Pul*, the Names of the two former Kings. It is likely therefore, that, taking Advantage of the Confusion that followed upon

upon the Dissolution of the *Assyrian* Monarchy, and the Division of it between *Arbaces* and *Beleſis*, he put himself at the Head of those who still adhered to the House of *Pul*, and getting Possession of *Nineveh*, there established a third Empire for himself, while *Arbaces* and *Beleſis* were employed in settling themselves in the Provinces they had respectively governed under the former Monarch. Thus we see a second *Assyrian* Empire rising out of the Ruins of the former, of which *Nineveh*, as before, remained the Capital. *Tiglath-Pileſer*, coming with a great Army to the Assistance of *Abaz*, took *Damascus*, and intirely destroyed the Kingdom of *Syria*, uniting it to his own. He likewise greatly distressed that of *Israel*, and even ravaged the Territories of his Friend and Ally King *Ahaz*. By this means were the Kings of *Assyria* first introduced into *Paleſtine*, which, finding to lie convenient for them, they resolved to make a Part of their Empire. They began with the Kingdom of *Israel*, which *Salmaſer*, the Son and Successor of *Tiglath-Pileſer*, intirely subdued,

3283. throwing *Hoſea* the King thereof into Priſon, and carrying the People into Captivity. About this Time died *Romulus* the first King of *Rome*, after a Reign of 37 Years. He was all his Life engaged in Wars, and always returned from them victorious. But this hindered him not from attending both to the civil and religious Establishment of his new Colony, where he laid the first Foundation of those Laws and Institutions that contributed so much to the Advancement of the *Roman* Empire. A long and

3290. uninterrupted Peace gave *Numa* his Successor an Opportunity of finishing the Work, by softening the Manners of the People, and bringing their Religion into a more exact Form. In this Time several Colonies from *Corinth* and other Parts of *Greece* built *Syracuse* in *Sicily*; and likewise *Crotona* and *Tarentum*, in that Part of *Italy* called *Magna Græcia* by reason of the many *Greek* Colonies already settled there. Mean while *Hezekiah* had succeeded *Ahaz* in the Throne of *Judah*. He was a Prince renowned for Piety and Justice; and so much the Favourite of Heaven, that it interposed in a miraculous Manner both in recovering him from a remarkable Sickneſs, and delivering him from the Menaces of *Sennacherib* King of *Assyria*. But *Manasseh* his Son, not treading in his Steps, was sold into the Hands of *Eſarhaddon* the Successor of *Sennacherib*. This Prince was wise and politic; he re-united the Kingdom of *Babylon* to that of *Nineveh*, and by his many Conquests equalled if not exceeded, in Extent of Dominion, the ancient *Assyrian* Monarch.

narchs. While *Esfarhaddon* was thus enlarging his Empire, the *Medes* were beginning to render themselves considerable by the wise Administration of *Deioces* their first King. He had been raised to the Throne on account of his Virtue, and to put an End to the Disorders occasioned by the Anarchy under which his Countrymen then lived. He built the City of *Ecbatana*, and laid the Foundations of a mighty Empire. *Rome* begins now to increase in Power and Territory, though by slow Advances at first. Under *Tullus Hostilius* her third King, and in the 83d Year of the City, happened the famous Combat of the *Horatii* and *Curiatii*, by which *Alba* was subjected, and its Citizens incorporated with the victorious *Romans*. At this Period begins the Reign of *Psammitichus* in *Egypt*. It had some time before been divided into twelve Parts, over which reigned twelve Princes, who as a Monument of their Union built the famous Labyrinth. But *Psammitichus*, who was one of them, incurring the Jealousy of the rest, they expelled him; whereupon he drew an Army together, subdued and dethroned the eleven confederate Princes, and seized on the whole Kingdom for himself. As the *Ionians* and *Carians* had been very serviceable to him in this Revolution, he granted them an Establishment in *Egypt*, hitherto inaccessible to Strangers. On this Occasion began the first Commerce between the *Egyptians* and *Greeks*, which as it was ever after constantly kept up, we are to account this, according to *Herodotus*, the *Æra* of the true *Egyptian* History; all that goes before being so darkened by the Fables and Inventions of the Priests, that it seems very little worthy of Credit.

3296.

3332.

3334.

3348.

In *Media*, *Phraortes* succeeded his Father *Deioces*, and after a Reign of 22 Years left the Kingdom to his Son *Cyaxares*, in whose Time happened the Irruption of the *Scythians*, who, vanquishing *Cyaxares* in Battle, dispossessed him of all the *Upper Asia*, and reigned there twenty-eight Years. In *Judah*, *Ammon* succeeding *Manasseh*, after a short Reign left the Kingdom to his Son *Josiah*, who proved a pious Prince, and thoroughly reformed the *Jewish* State. *Rome* in the mean time was enlarging her Territories under her 4th King *Ancus Martius*, and, by the wise Establishment of incorporating the conquered Nations, increased in Power and the Number of her Citizens. *Babylon*, we have seen, had been re-united to *Nineveh*, and so continued till the Reign of *Chiniladan*; but he proving an effeminate Prince, *Nabopolassar*



far, whom he had made General of his Armies against *Cyaxares* the *Mede*, rebelled against him, and, joining with *Astyages* the Son of *Cyaxares*, invested *Nineveh*, took

3378. the Place, and slew his Master *Chiniladan*, called otherwise *Saracus*. After which, to gratify the *Medes*, he utterly destroyed that great and ancient City; and from that Time *Babylon* became the sole Metropolis of the *Affyrian* Empire. *Nabopolassar* was succeeded by

3397. his Son *Nebuchadnezzar*, a Prince renowned in History, and who, by his mighty Conquests both in the East and West, raised *Babylon* to be the Metropolis of the World. By him was *Jerusalem* taken three several Times, and at last totally destroyed; the whole People of *Judab* being led into Bondage by the Conqueror. This is the famous *Babylonish* Captivity of seventy Years, so often mentioned in the Writings of the Prophets. *Greece* was at this Time in a very flourishing Way, and began to discover her Acquirements in

Learning and the polite Arts. Her seven Sages rendered her famous; and *Solon*, by the wise Laws which he established at *Athens*, reconciling Liberty and Justice, introduced such Regulations among the Citizens as naturally conduced to the forming them a brave and knowing People. *Tarquinius Priscus* now reigned at *Rome*. He subdued Part of *Tuscany*; and, having adorned the City with many magnificent Works, left the Throne to

3425. *Servius Tullius*. This Prince is famous for the Institution of the *Census*, and the many Laws he made in favour of the People. In *Egypt*, *Psammitichus*, after a Reign of 54 Years, was succeeded by his Son *Nechus*, the same who in Scripture is called *Pharaoh Necho*. It was

3394. against him that *Josiah* King of *Judab* fought that unhappy Battle in the Valley of *Megiddo*, where he received the fatal Wound of which he died. *Nechus* was succeeded by *Psammis*, who left the Kingdom to his Son *Apries*, the *Pharaoh Hophra* of the Scripture, against whom so many Prophecies are levelled. The first Year of *Apries* was the last of *Cyaxares* King of the *Medes*, who, after a Reign

3410. of 40 Years, was succeeded by his Son *Astyages*. *Nebuchadnezzar* in *Babylon*, having finished all his Expeditions, and greatly enriched himself with

3434. the Spoils of the conquered Nations, set himself to adorn that City, and raised all those stupendous Works about it of which we read with so much Wonder in ancient History. *Evilmerodach* his Son, after a short Reign of

two Years, becoming intolerable even to his own Relations, they conspired against him, and slew him. *Neriglissar*, his Sister's Husband, who headed the Conspiracy, succeeded him. About this Time *Pisistratus* usurped the sovereign Authority at *Athens*, which he held with various Change of Fortune thirty Years, and even left it to his Children. The *Medes* mean while were increasing in Power under *Astyages*, which rousing the Jealousy of *Neriglissar* King of *Babylon*, he declared War against them; *Astyages* dying, leaves both the Kingdom and the Care of the War to *Cyaxares* his Son, called by *Daniel*, *Darius the Mede*. As the War wherewith he was threatened was very formidable, he applied to the King of *Persia*, who had married his Sister *Mandana*, for Assistance. *Cambyfes* sent a good Body of Troops, and with them *Cyrus* his Son, Nephew to *Cyaxares*, whom that Prince appointed General of his Armies against the King of *Babylon*. *Cyrus* was a young Prince of great Hopes, and had already given signal Proofs of Courage and Conduct in several former Wars under *Astyages* his Grandfather. But his Virtues are now going to display themselves in all their Lustre, and present us with the Picture of a Hero, who, by a Train of the most glorious Actions, has justly merited to be handed down to Posterity as a Pattern of all that is truly great and praise-worthy in the Character of a Prince and a Ruler. The very Name of *Cyrus* carried such a Weight and Authority with it as to draw into the Alliance of *Cyaxares* almost all the Kings of the East, nor was it long before he gave Proofs of that Merit which was already so universally ascribed to him. For having, by his superior Abilities in the Art of War, vanquished the King of *Babylon* and *Cræsus* his Ally in Battle, he pursued his Advantage over the latter, surrounded him in his Capital, and got Possession both of his Kingdom and immense Riches. With the same Expedition he subdued the other Allies of the King of *Babylon*, made himself Master of all *Asia Minor*, and extended his Conquests even into *Syria*. In fine, he marched against *Babylon* itself, took that mighty City, and thereby became Master of the whole *Assyrian* Empire, which he put under the Dominion and Authority of his Uncle *Cyaxares*; who now, equally touched with this signal Proof of his Fidelity as before with his glorious Exploits, gave him his only Daughter in Marriage. *Cyaxares* dying within two Years, as likewise *Cambyfes* King of *Persia*, *Cyrus* succeeded to the whole Monarchy. In this manner

manner was the Empire of the *East* transferred from the *Affyrians* to the *Medes* and *Persians*. But as *Cyrus* was himself a *Persian*, and all his Successors after him of the same Nation, hence it has happened, that this second great Empire, as it ought to be accounted, obtains in ancient History the Name of the *Persian* Monarchy; *Cyrus* and not *Cyaxares* being reputed the Founder thereof. And indeed when we consider that *Cyrus* alone headed the *Medes* during this long War, that it was to his Valour and Wisdom they were indebted for all their Conquests, and that he in Person took the great City of *Babylon*, it seems but just to ascribe to him the Honour of this whole Revolution. For these Reasons I have chosen to date the Beginning of this second great Empire, not from the Taking of *Babylon*, but from the Succession of *Cyrus*, who alone can with Justice be accounted the Founder thereof.

P. I must here beg leave to interrupt you a little, in order to the clearing up of some Doubts that occur in the Part of History you have been just explaining. You may remember I told you in the Beginning, that I was not quite a Stranger to ancient Times, having perused several Pieces of History that gave me some general Knowledge of Things. -Now, as far as I can remember, their Account of the ancient Monarchies differs considerably from yours. They speak nothing of a second *Affyrian* Empire, but make it end altogether in the Death of *Sardanapalus*. Then succeeds the Monarchy of the *Medes*, which concludes with *Astyages*; and the *Persians* come in the third in Order, founding their Empire upon the Ruin of the *Medes*.

G. What you observe here comes in very seasonably; and I am glad of the Interruption, as it will give me an Opportunity to clear up this dark Part of History, and guard you against the Mistakes you might be apt to run into by a promiscuous Reading of Authors without due Caution. You are to observe, therefore, that the Affairs of the Eastern Nations, preceding the Reign of *Cyrus*, are but very confusedly handed down to us by profane Historians. The Account you have just now recited is indeed that of the greater Part of the *Greek* Writers, and of the *Latins* who copied from them. *Ctesias*, *Diodorus Siculus*, and *Justin*, all agree in this Representation of the ancient Monarchies, which can by no means be reconciled to the Relations of Holy Writ, which I have followed as the surest Guide in this dark Period of Time. However, if the *Greek* Accounts differ thus from Scripture, it is remarkable that they agree as little among themselves. The Birth and Death of *Cyrus* are variously recounted; and

Here-



*Herodotus* observes, that there were three several Traditions relating to them, besides that which he followed in his History. *Xenophon*, who was himself in *Persia* in the Service of *Cyrus* the younger, the Brother of *Artaxerxes Mnemon*, had an Opportunity of fully instructing himself in the Life and Actions of the ancient *Cyrus*, from the Annals and Traditions of the *Persians* themselves. And sure the Relations of that wise Philosopher and able Captain, who made it his Business to search out the Truth in this Matter, ought to be preferred before that of *Ctesias*, whom some of the most judicious of his own Nation stile a fabulous Writer, unworthy of Credit: And yet from him have *Diodorus* and *Justin* copied all they say. Even *Herodotus* himself ought to give place here, who, though a very judicious Historian, had a strong Bias to the Marvellous, and evidently followed this Bent of his Genius in the Account he has given of *Cyrus*. But what is still of greater Weight, the History of *Xenophon*, as it is itself the best connected and the most probable of any, so does it exactly agree with Scripture, which, on account of its Antiquity, and the near Relation of the Affairs of the *Jews* with those of the other Eastern Nations, would evidently deserve the Preference of the *Greek* Accounts, were we to consider it as no more than a bare History of these Times. In reality, the *Greeks* knew but little of the Affairs of the more remote Eastern Nations. Probably the *Medes* under *Deioces* and his Successors, though far inferior in Power to the *Assyrian* Monarchs, had nevertheless extended their Conquests into *Asia Minor*, and the Nations bordering upon the *Greek* Colonies. By this means they became famous in those Parts, and the Empire of all *Asia* was ascribed to them, because the other Princes of the *East* were but little known. That this was but a mere Effect of Ignorance in the *Greeks*, appears not only from the ill Agreement of their Relations with Scripture, but likewise from their Contrariety to such of the Writers of their own Nation as seem to have been best informed, and to have searched into these Things with the greatest Care. *Herodotus* promises a particular History of the *Assyrians*, but no such Work is come down to us; whether it be that the Piece itself is lost, or that he never found Time to compose it. We have all the Reason in the World however to believe, that he would not have omitted the Kings of the second *Assyrian* Monarchy, since in those Books of his that still remain we meet with the Name of *Sennacherib*, who was one of them, and is there spoken of as King of the *Assyrians* and *Arabians*. *Strabo*, one of the

most judicious Authors of Antiquity, relates, that *Megasthenes*, who lived near the Times of *Alexander the Great*, had written of the famous Exploits of *Nebuchadnezzar* King of the *Chaldeans*. But what puts this Matter beyond Dispute is the celebrated Canon of *Ptolemy*, where we have a List of the *Babylonish* Kings from *Nabonassar* quite down to *Cyrus*; that is, from the Death of *Sardanapalus* to the Foundation of the *Persian* Empire. If with all this we consider, that the sacred Historians lived many of them in the very Times of which they write, that they describe the Affairs of a People bordering upon the great Empires, and who were at last subjected to them, we cannot any longer doubt what Relations and Testimonies are most worthy of Credit. Here then seems to be the Truth of the Matter: The *Medes*, after the Death of *Sardanapalus*, living under Kings of their own, became a very considerable People; and being best known to the *Greeks*, by reason of their Neighbourhood to the Colonies of that Nation settled in *Asia Minor*, were by them little acquainted with what passed in the more remote Regions of the *East*, deemed the Masters of all *Asia*. It is certain, however, that the Kings of *Assyria* and *Babylon* far exceeded them in Wealth and Power. But *Cyrus* having subdued the *Babylonians* by the joint Forces of the *Medes* and *Persians*, as *Daniel* expressly tells us, and *Xenophon* describes at large, it is apparent, that this new Empire, of which he became the Founder, ought to take its Name from both Nations; insomuch that the Monarchy of the *Medes* and that of the *Persians* are in reality one and the same, though the prevailing Glory of *Cyrus* hath occasioned that his Nation carries away in History all the Honour of this Revolution. I have still one Thing more to add upon this Subject; and it is, that, though I acknowledge a new *Assyrian* Monarchy rising out of the Ruins of the former under *Sardanapalus*, I have yet chosen, in the View I gave of the Succession of the great Empires, to make that of the *Persians* founded by *Cyrus* the second in Order, contrary to the Method followed by some others. But that this is the most reasonable and natural Division, will easily appear to any one who considers, that the Revival of the *Assyrian* Power in *Nineveh* by *Tiglath-Pileser*, and the transferring it to *Babylon* by *Nebuchadnezzar*, were not properly the Establishment of a second Empire, but merely Revolutions in the old. *Tiglath-Pileser* is upon good Grounds conjectured to have been of the Race of the ancient *Assyrian* Kings; nor is it unlikely that *Nabopolassar* was also of the Blood Royal. But be that as it will, the bare  
Change

Change of the Prince, or the Removal of the Imperial Seat from one City to another, should not induce us to multiply the Number of Empires without Necessity, when it is known that the same People, and under the same Name too, all along held the Dominion of the *East*.

P. Here I begin to be sensible of the great Advantage of Clearness of Method. Already I am forming in my Mind an Idea of the four great Empires rising in Succession one after another; the *Affyrian*, the *Persian*, the *Grecian*, and the *Roman*. The first, I think, I have got a pretty distinct Notion of. I have seen its Rise, Continuance, and Fall; can connect its History with that of other Nations; and, by viewing it in relation to the several Periods and Epochas that fall within the Compass of its Years, am able to trace in my Mind the most remarkable Events and Revolutions of History, according to the due Order of Time in which they happened. I mention this, that you may see how I have improved by your past Instructions, and what Hopes I may justly entertain in regard of those that are to come. But now that you have cleared up this Part of History, and removed some Mistakes I had fallen into in relation to these dark Ages, I can listen with greater Satisfaction to the Account you are next to enter upon of the *Persian* Monarchy; and shall endeavour as little as possible to disturb the Course of your Narration by unseasonable Interruptions.

G. In the 4178th Year of the *Julian* Period, 218 Years after the Building of *Rome*, and 536 before the Birth of *Christ*, *Cyrus* succeeding to the Throne of *Cyaxares*, and becoming sole Monarch of all the *East*, here we are to fix the Beginning of the *Persian* Empire. In the first Year of his Reign he published the famous Decree for rebuilding the Temple of *Jerusalem*; the seventy Years Captivity being now compleated, according as had been foretold by the Prophets. *Servius Tullius* still reigned at *Rome*. He had greatly enlarged the City, and by his mild and popular Administration was become the Darling of his Subjects. This excellent Prince fell a Sacrifice at last to the Perfidy of his own Daughter, and the ambitious Designs of his Son-in-law *Tarquin the Proud*, who succeeded him in the Throne. *Cyrus*, after a Reign of seven Years, left his Kingdom to his Son *Cambyses*. Under him the *Persians* enlarged their Empire by the Conquest of *Egypt*. He proved however a very brutal Prince, unworthy to fill the Throne of *Cyrus*. His

Years of the  
World.

8 Epocha.  
The Reign  
of *Cyrus*.  
3468.

3470.

3475.



Brother *Smerdis* he ordered to be killed privately, on account of a suspicious Dream that had disturbed his Fancy. He did not long survive him; and upon his Death *Smerdis* the *Magian* usurped the Throne, under pretence of being the true *Smerdis* the Son of *Cyrus*. However the Cheat was soon discovered, which gave occasion to the famous

3483. Confederacy of the seven Noblemen, the Result of which was, that *Darius* the Son of *Hystaspes* was raised to the *Persian* Throne. During the Reign of this Prince, *Athens* recovered its Liberty. *Harmodius* and *Aristogiton* delivered their Country from the Tyranny of *Hippiarchus* the Son of *Pisistratus*, by slaying the Ty-

3494. rant; and *Hippias* his Brother was obliged to throw himself into the Arms of *Darius*. This was what gave rise to the Wars between the *Persians* and the *Greeks*. From hence are we to date the mighty Glory of *Athens*. We shall soon see this small Commonwealth an Over-match for all the Power of the *East*; so true is it that Liberty ennobles the Mind, and affords the truest Foundation whereon to build the Grandeur of a State. About the Time of this Revolution at *Athens*, happened another of the like Nature at *Rome*. *Tarquin*, by his Violence and arbitrary Measures, had rendered the Royal Power odious, and the Attempt of his Son *Sextus* upon *Lucretia* compleated the public Indignation. The People, animated by the Speeches and heroic Behaviour of *Brutus*, shake off the Regal Tyranny, and declare themselves a free State. This *Æra* of the *Roman* Liberty commenceth from the 244th

3494. Year after the Building of the City. *Tarquin* however found Means to draw in several neighbouring Princes to espouse his Quarrel, among whom *Porfenna* King of the *Clusians* bears the most distinguished Name in History. It is upon this Occasion that the *Romans* first begin to discover that noble Ardour for Liberty, that inviolable Love of their Country, which makes a bright Part of the Character of that renowned People. Here we read of the astonishing Valour of *Horatius Cocles*, the intrepid Spirit of *Scævola*, and the masculine Boldness of *Clelia*. *Porfenna*, admiring the Bravery of the *Romans*, would not any longer disturb them in the Enjoyment of a Liberty to which their Merit gave them so just a Title. But they, who could not be overcome by any foreign Force, had well nigh ruined themselves by their intestine Divisions. The Jealousy between the *Patricians* and *Plebeians* rose to that Height, that the latter retired from the City, and intrrenched themselves upon a Hill, called

called afterwards *Mons Sacer*. However, the mild Persuasions of *Menenius Agrippa*, and the Concession made by the Senate of new *Plebeian* Magistrates, whose Office it was to protect the People against the Consuls, appeased their Discontents, and restored Tranquillity to the State. The Law appointing the Institution of these Magistrates was called the sacred Law, and the Magistrates themselves had the Title of Tribunes of the People. This remarkable Revolution happened in the 260th Year of the City. *Hippias*, we 3510.  
have seen, had retired into *Persia*, and was soliciting *Darius* to make War upon the *Athenians*. He at length prevailed, and *Mardonius* was sent 3514.  
with a numerous Army against them: But *Miltiades*, with a Handful of Men, gave the *Persians* Battle in the Plains of *Marathon*, and intirely routed them. This Victory is the most renowned in ancient History, for the *Athenians* did not exceed ten thousand, and the *Persians* have been computed at twenty times their Number. At *Rome* the Feuds between the Nobility and the People still subsisted. The Banishment of *Coriolanus* had well nigh proved fatal to the Commonwealth, which owed its Deliverance from the imminent Danger that threatened it to 3516.  
the Tears of the incensed Hero's Mother. In the mean time *Xerxes*, succeeding *Darius* in the 3519.  
Throne of *Persia*, prepared to revenge the Defeat at *Marathon*, by a new Expedition against *Greece*. He is said to have been followed in this Attempt by an Army of seventeen hundred thousand Men. *Leonidas* King of *Sparta*, with only three hundred *Lacedemonians*, encountered his whole Force in the Streights of 3524.  
*Thermopilaë*. For three Days he made good the Passes against the numerous Army of the *Persians*; but being at length surrounded, he and his Followers were all slain upon the Spot. By the wise Counsels of *Themistocles* the *Athenian* Admiral, the naval Army of the *Persians* was this same Year vanquished near *Salamis*; and *Xerxes*, in great Fear, repassed the *Hellepont*, leaving the Command of his Land-Forces to *Mardonius*. But he too, the Year after, was cut in Pieces with his whole Army near *Plataea*, by *Pausanias* King of the *Lacedemonians*, 3525.  
and *Aristides*, surnamed the *Just*, General of the *Athenians*. This Battle was fought in the Morning, and the Evening of the same Day their naval Forces obtained a memorable Victory over the Remainder of the *Persian* Fleet at *Myce*, a Promontory on the Continent of *Asia*. Thus ended all the great

great Designs of *Xerxes* in a miserable Disappointment, and the utter Destruction of that prodigious Army with which the Year before he had marched so proudly over the *Hellepont*. The *Carthaginians*, by this Time a powerful People, had been engaged by *Xerxes* to fall upon the *Greek Colonies* in *Sicily*, while he was employed against them in their own Country; but they had no better Success than the *Persian Monarch*, and, being shamefully beaten, were obliged to abandon the Island. *Xerxes*, dying after a Reign

3540. of 21 Years, was succeeded in the Kingdom by *Artaxerxes Longimanus*. He is generally supposed

to be the King from whom *Nehemiah* received the Commission to restore and rebuild *Jerusalem*. But it is now Time to turn our Thoughts a little towards the *Romans*, who, having been formed under Kings, were but ill provided with Laws suited to the Constitution of a Republic. The Reputation of *Greece*, yet more renowned for the Wisdom of its Government than the Fame of its Victories, determined the *Romans* to draw up a Scheme of Laws upon their Model. Deputies were therefore sent to examine into the Constitutions of the several *Greek Cities*, particularly those of *Athens*,

3554. whose Plan of Government seemed to have a greater Resemblance with that of *Rome*. Ten Magistrates were elected, with absolute Authority,

to carry this Design into Execution. The *Decemvirs* accordingly composed a Body of Laws, which having digested into twelve Tables, they were proposed to the People, and received their Approbation. It was natural to think, that these Magistrates, having finished the Business for which they were chosen, would, upon the Expiration of their Term of Power, have resigned their Offices, and suffered the Government to return to its former Course. But it seems they found too many Charms in Authority to quit it so readily; they aimed at no less than perpetuating their Command, and vainly thought to entail Slavery upon a State whose prevailing Passion was the Love of Liberty. Power usurped by unlawful Means seldom abstains from Violence and Excesses: and the very Methods taken to establish it prove often in the End the Cause of its Destruction. And so it happened here; for, the *Decemvirs* declining from that Moderation by which they had, in the Beginning of their Authority, recommended themselves to the Favour of the People, a general Discontent arose; and the iniquitous Decree of *Appius*, whereby he reduced a Father to the cruel Necessity of murdering his own Daughter, so effectually roused the ancient *Roman Spirit*,



rit, that, disdaining to submit any longer to these Oppressors, they abolished the *Decemvirate*, and restored the Authority of the Consuls. Thus did the Blood of *Virginia* produce a Revolution in the *Roman State*, not unlike what had before happened in the Case of *Lucretia*. About this Time *Cimon* the *Athenian General* rendered himself famous by his many Victories over the *Persians*, insomuch that *Artaxerxes*, weary of so destructive a War, signed a Treaty of Peace highly to the Honour and Advantage of *Greece*. He had resolved to pursue a different Scheme of Politics; and, instead of drawing their whole Forces upon himself, endeavoured to weaken them by fomenting their intestine Divisions. The

War that soon after broke out between the *Athe-* 3573.  
*nians* and *Lacedemonians*, made him sensible of the Advantages that might accrue from such a Conduct. It was during this War, described at large by *Thucydides* and *Xenophon*, and known in History under the Name of the *Peloponnesian War*, that we read of *Pericles*, *Alcibiades*, *Thrasylbulus*, *Conon*, *Brasidas*, and *Lysander*. So many illustrious Men, all flourishing in the same Age, contributed to raise *Greece* to the highest Pitch of Glory, and spread her Fame to the most distant Nations. This fatal War, after it had lasted 27 Years, ended at length in 3600.

the Taking of *Athens* by *Lysander*, who had found means to draw into the Party of the *Lacedemonians*, *Darius Nothus*, the Son and Successor of *Artaxerxes*. But the *Persians* soon became sensible of the Error they had committed in making the *Lacedemonians* too powerful; for that ambitious Republic, having now no Rival to fear, began to extend its View to *Asia*, and even promoted the Expedition of young *Cyrus* against his Brother *Artax-* 3603.  
*erxes Mnemon*, who had succeeded *Darius Nothus*.

This ambitious Prince fell in Battle by his own Rashness, and left the ten thousand *Greeks* who served under him exposed to all the Dangers of War in an unknown Country, several hundreds of Miles distant from their own Homes, and surrounded on every Side with numerous Armies. There is not any thing in History more celebrated than this Retreat, which has been handed down to us by *Xenophon*, who himself conducted it, and was one of the ablest Commanders and greatest Philosophers of his Time. Thus were the *Greeks* first made sensible of the real Weakness of the *Persian Empire*, hitherto deemed so formidable; and the Exploits of 3608.

*Agefilas* in *Asia* soon after, where he bade fair for overturning that mighty Monarchy, had he not been recalled by

by the unhappy Divisions of his Country, were a plain Proof that nothing was wanting but a good General, and Union among themselves, to compleat the Conquest of the *East*.

*Rome* was rendering herself formidable to all the Nations around her; and *Vei*, one of the strongest and most opulent Cities in *Italy*, was taken by *Camillus* after a Siege of ten Years. But this great Increase of Territory was soon followed by a fatal Calamity that brought the Republic to the Brink of Ruin; I mean the Ir-ruption of the *Gauls*, who defeated the *Roman*

3615. Army; and, advancing against the City itself, laid it in Ashes in the 363d Year after it had been founded by *Romulus*. Such of the Senators and Nobles as chose to survive the Ruin of their Country retired into the Capitol with *Manlius*, where they resolutely defended themselves till they were relieved by *Camillus*, whose ill Usage and Banishment had not diminished his Regard to his Country. Thus was *Rome* again restored to her former Splendor by the Conduct and Bravery of that great Man. In *Greece* the *Lacedemonian* Power began to decline; and *Thebes*, which hitherto made no Figure in the History of that Nation, raised herself to the highest Pitch of Glory by the Wisdom and Valour of *Epaminondas*. This General is one of the most illustrious Characters of Antiquity. He was possessed in an eminent Degree of all the Virtues requisite in a Warrior and a Statesman. Nor was he less distinguished by his Abilities as a Philosopher, and his amiable Qualities in private Life; insomuch that Historians unanimously represent him as a Pattern of all that is great and excellent in human Nature. *Thebes*, after his Death, lost that conspicuous Figure he had given her, and was no longer able to maintain her Reputation. Indeed all *Greece* is going to submit to a new Power, which, beginning in *Philip*, rose at last to the Dominion of all *Asia* under his Son and Successor *Alexander*. This *Philip* was King of *Macedon*, and had been bred up under *Epaminondas*. As he was of an enterprising Genius, and gave early Proofs of his unbounded Ambition, all the neighbouring Powers set themselves to oppose his growing Greatness. But though *Ochus* and his Son *Arses*, Kings of *Persia*, did their utmost to thwart his Designs; though the *Athenians*, roused by the Eloquence of *Demosthenes*, that intrepid Defender of his Country's Liberties, drew almost all *Greece* into a Confederacy against him; he, notwithstanding, triumphed over every Difficulty, and the Victory of *Choronea* rendered him absolute in all the *Grecian* States. He was now forming the Plan of

an Expedition into the *East*; and had projected nothing less than the total Overthrow of the *Persian* Empire, when an untimely Death hurried him out of the World.

*Alexander*, surnamed the *Great*, his Son, succeeded him; a Prince who from his earliest Years had given Proofs of an heroic Soul, that seemed destined for the Conquest of the Universe. Much about the same Time *Darius Codomannus* ascended the Throne of *Persia*. He had in a private Station distinguished himself by his Valour and Prudence; but it being his Fate to encounter the prevailing Fortune of *Alexander*, all his Efforts proved insufficient to support him against that formidable Rival. For *Alexander*, having first settled the Affairs of *Greece*, over-ran all *Asia Minor* with amazing Rapidity, defeated *Darius* in three pitched Battles; and, upon the Death of that Prince, who was treacherously slain by *Bessus*, became sole Monarch of all the *East*.

3668.

Here then begins our 9th Epocha, not from *Alexander's* Succession to the Throne of *Macedonia*, but from the Death of *Darius*, in whom the *Persian* Empire ended. For *Alexander* pursuing his Victories with the utmost Expedition, and having made himself Master of almost all the Provinces of the *East*, became thereby the Founder of the third, or *Macedonian* Empire. This happened in the 4384th Year of the *Julian* Period, 424 Years after the Building of *Rome*, and 330 before the Birth of *Christ*. During this victorious Progress of *Alexander*, *Rome* was engaged in a long War with the *Samnites*, whom after many Battles she at length subdued, chiefly by the Valour and Conduct of *Papirius Cursor*, one of the greatest Generals of his Time. *Alexander*, still continuing his Conquests, penetrated as far as *India*, and returning to *Babylon*, there died in the 33d Year of his Age. After his

Years of the  
World.

9 Epocha.  
*Alexander*  
the Great.

3674.

3681.

Death, his Empire was variously divided among his Followers. *Perdiccas*, *Ptolemy* the Son of *Lagus*, *Antigonus*, *Seleucus*, *Lysimachus*, *Antipater*, and his Son *Cassander*, who had been all Commanders under this great Conqueror, and learned from him the Art of War, formed a Design of rendering themselves Masters of the several Provinces over which they were constituted Governors. They sacrificed to their Ambition the whole Family of *Alexander*; his Brother, his Mother, his Wives, his Children, and even his Sisters. Nothing was to be seen but Wars, Bloodshed, and endless Revolutions. During these Disorders several Places of *Asia Minor* shook off the



the *Macedonian Yoke*, and established themselves into independent Kingdoms. In this manner were the Realms of *Pontus*, *Bithynia*, and *Pergamus* formed, which, by their advantageous Situation, and a steady Application to Traffick, rose afterwards to great Wealth and Power. *Armenia* too about the same time became a distinct Kingdom; and *Mithridates*, with his Son of the same Name, founded that of *Cappadocia*. But the two most considerable Monarchies that arose upon this Occasion were that of *Egypt*, founded by *Ptolemy* the Son of *Lagus*, and that of *Asia*, or *Syria*, founded by *Seleucus*; for these continued steady and permanent, and were inherited by their Posterity, the *Ptolemies* and *Seleucidae*, for many Years. Thus was all the East subject to *Greece*, and received its Language and Customs; insomuch that, though it was not under the Dominion of one Prince as formerly, yet the *Greeks* universally bearing Sway in those several Principalities into which it was divided, this hath seemed a sufficient Reason to Historians for styling the Times we are speaking of the Period of the *Grecian* or *Macedonian* Empire. In *Greece* we meet with nothing but a continued Train of Revolutions. *Cassander*, *Pyrrhus* King of *Epirus*, *Demetrius Poliorcetes*, *Lyfimachus*, and *Seleucus*, reigned successively in *Macedonia*; each establishing himself by the Expulsion of his Predecessor. The *Romans* were all this while extending their Conquests in *Italy*; and, having subdued the *Samnites*, *Brutians*, and *Hetrurians*, threatened *Tarentum* with the same Yoke. The *Tarentines*, finding themselves too weak to resist that powerful Republic, cast their Eyes upon *Pyrrhus* King of *Epirus*, whose great military Fame made them believe they

should be invincible under so renowned a Commander. *Pyrrhus* obtained two successive Victories over the *Romans*, but in the End was beaten by the Consul *Curius*, and forced to abandon

3725. *Italy*. *Antigonus Gonatas* got Possession of the Throne of *Macedonia*, and left it to his Posterity,

though not without great Opposition from *Pyrrhus*, who was killed at length at *Argos* by a Tile thrown from a House-top. The *Achean* League, projected and set on foot by *Aratus*, began about this Time to make a Figure in *Greece*. It was a Confederacy of several powerful Cities of *Peloponnesus* and the adjoining Regions in Defence of Liberty, and indeed the last Effort made by the *Greeks* to maintain their Independency and Freedom. In *Italy* the *Romans*, after the Departure of *Pyrrhus*, found nothing able to oppose their Power. They had been enlarging their Territories by an almost continual Series of

Wars

Wars for upwards of 480 Years, and now found themselves Masters of the whole Country from the farthest Part of *Hetruria* to the *Ionian* Sea, and from the *Tuscan* Sea cross the *Apennines* to the *Adriatic*. Thus their Ambition, crowned with Success, inspired them with still greater Views. The adjoining Island of *Sicily*, as it lay convenient for them, so was it possessed in part by the *Carthaginians*, a powerful People, whose Neighbourhood they began to look upon with an Eye of Jealousy. We have seen the Foundations of this Republic by *Dido*, and that it was considerable for Wealth and Extent of Territory as far back as the Reign of *Xerxes*. At the Time we are speaking of, their Dominions reached a great Way on both Sides of the *Mediterranean* Sea. For, besides the *African* Coast, of which they were intirely Masters, they had also made many Conquests in *Spain*, settled themselves in *Corfica* and *Sardinia*, and possessed several Towns in *Sicily*. This, added to their immense Wealth acquired by Commerce, and the Sovereignty of the Sea, which no Nation could then dispute with them, made the *Romans* consider them as formidable Rivals, who, if not speedily checked, might grow to a Power too mighty even for *Italy* itself. Hence the Rise of the several *Punic* Wars, which in the End proved so fatal to the *Carthaginians*. That we are now to speak of began in the 3739. 489th Year of the City; and is remarkable, not only as being the first Foreign War in which the *Romans* were engaged, but also because herein they formed the Design of making themselves Masters at Sea, and, which is almost beyond Belief, accomplished it. The Consul *Duillius* ventured to fight the *Carthaginian* Fleet, and obtained a complete Victory. *Regulus*, his Successor, no less distinguished himself, and, landing in *Africa*, reduced *Carthage* to the greatest Extremity; insomuch that, but for the Arrival of *Xantippus* the *Lacedemonian*, it must have been taken. That experienced General, by his wise Conduct, gave a great Turn to the Affairs of *Africa*. *Regulus* was vanquished and made Prisoner; but this Reverse of Fortune served only to add more Lustre to his Fame. Being sent into *Italy* to negotiate a Peace, and treat of an Exchange of Prisoners, he strenuously defended in the Senate that Law by which it was declared inconsistent with the Glory of the *Roman* Name to redeem Prisoners taken captive in a Day of Battle. Upon his Return to *Africa*, we are told, he suffered a cruel Death from the Resentment of the *Carthaginians*, who were incapable of admiring that Nobleness of Soul which made him prefer the Interest of his Country to all private Con-

Considerations. The War was maintained for a long Time with various Success; *Hamilcar*, the *Carthaginian* General, distinguishing himself eminently in *Sicily* by his great military Skill: But at last, the Consul *Lutatius* obtaining a compleat Victory over the Enemy's Fleet near the *Ægatian* Isles, *Carthage* was compelled to submit, and accept of such Terms of Peace as the *Romans* were pleased to grant. Immediately after the Conclusion of this War, which had lasted four and twenty Years, the *Carthaginians* found themselves involved in another, which brought them to the very Brink of Destruction. The mercenary Troops of which their Armies were composed, revolting for want of their Pay, were joined by almost all the Cities of *Africa*, who hated the *Carthaginian* Government. All Endeavours to appease them proved ineffectual; they invested *Carthage* itself; and that great City had been inevitably lost, but for the Valour and Conduct of *Hamilcar*, surnamed *Barchas*. He found Means to vanquish the Rebels, and recover all the revolted Cities. The *Carthaginians* however, upon this Occasion, lost *Sardinia* by the Treachery of the *Romans*, who, taking Advantage of their domestic Troubles, seized that important Island, and even augmented the Tribute they had at the End of the War imposed upon that unhappy State. *Carthage* was obliged to take all in good Part, as not being in a Condition to oppose these Incroachments. They now began to think of re-establishing their Dominion in *Spain*, which had been greatly shaken by the late Revolt. *Hamilcar* was sent to command in that Province, where he carried on the War for nine Years with great Success. His son, the famous *Hannibal*, was in the Camp with him, and not only learned under that renowned Commander the whole Art of War, but also at this time contracted that implacable Hatred against the *Romans*, which afterwards gave Rise to so many Wars. *Asdrubal* succeeded *Hamilcar* in the Command of the Army. He governed with great Prudence, and, by his mild and peaceable Administration, thoroughly established the *Carthaginian* Power in those Parts. Mean while the *Romans* were engaged in a War with *Teuta* Queen of the *Illyrians*, who suffered her Subjects to practise Piracy on the Sea-Coast; but she was soon forced to submit, and resign Part of her Dominions to the Conquerors. Their next War was with the *Gauls*, whom they accounted their most formidable Enemies; and therefore, though they began to entertain a Jealousy of the Increase of the *Carthaginian* Power in *Spain*, yet not daring to break with that Republic in the present critical Conjunction,



ture, they sent Ambassadors to *Asdrubal* to draw him by fair Words into a Treaty, wherein he should covenant not to pass the *Iberus*, which was accordingly agreed to. Hereupon the *Romans* applied themselves seriously to the War against the *Gauls*; and, having vanquished them in several Battles, passed the *Po*, pushed on their Conquests on the other Side of that River, and thereby became Masters of all *Italy*, from the *Alps* to the *Ionian Sea*. About this Time died *Asdrubal* in *Spain*; and *Hannibal*, at the Age of 25, succeeded him in the Command of the Army. He was the Darling of the Soldiers, who fancied they saw in him all the Virtues they had so often admired in his Father *Hamilcar*. Nor did his Behaviour after his Promotion disappoint their Expectations; for he completed the Conquest of *Spain* with amazing Rapidity, and, thinking himself strong enough now to enter upon the long-projected War with the *Romans*, advanced with his Army to the River *Iberus*, and invested *Saguntum*. The Complaints of the *Roman* Ambassadors were very little regarded at *Carthage*. The Loss of *Sicily*, the treacherous Behaviour of the *Romans* in seizing *Sardinia*, and augmenting the Tribute exacted at the End of the War, and their unjust Attempts to abridge their Power and bound their Conquests in *Spain*, had so irritated the Minds of the *Carthaginians*, that all the Endeavours of the Faction which opposed *Hannibal* were fruitless. Hereupon War was proclaimed against *Carthage* by Order of the *Roman Senate*, in the 535th Year of the City. Mean time *Hannibal* was taking all the Measures necessary to secure the Success of his Designs. The *Italic Gauls* were gained over by Ambassadors secretly dispatched for that Purpose; the Nations through which he was to pass were for the most part prevailed on by Presents not to oppose his March; and the Peace of *Africa* and *Spain* were secured by strong Detachments of Troops left in those Parts under the Command of proper Governors. When all Things were now ready for the Expedition, he crossed the *Iberus*, traversed the *Pyrenees*, *Transalpine Gaul*, and the *Alps*, and came pouring down with all his Forces upon *Italy*, while the *Romans* hardly yet imagined him set out from *Spain*. The *Italic Gauls* readily joined him, and thereby very seasonably reinforced his Army, which had suffered extremely in its Passage over the *Alps*. Four Battles successively lost made it probable that *Rome* must soon fall into the Hands of this irresistible Conqueror. *Sicily* too followed the Fortune of the *Carthaginians*. *Hieronymus* King of *Syracuse* declared against the *Romans*; almost all *Italy* abandoned them; and the Republic seem-

ed deprived of its last Resource by the Death of the two *Scipios* in *Spain*. In this Extremity *Rome* owed her Safety to the Valour and Conduct of three great Men. The Firmness of *Fabius*, who, despising popular Rumours, pursued steadily those slow Measures by which alone he found *Hannibal* could be vanquished, served as a Rampart to his Country. *Marcellus*, who raised the Siege of *Nola*, and took *Syracuse*, revived by Degrees the Courage of the *Roman* Troops. But the Glory of conquering *Hannibal*, and putting a final End to this dangerous War, was reserved for young *Scipio*. At the Age of twenty-four he undertook to command in *Spain*, where his Father and Uncle had both lost their Lives. Immediately upon his Arrival, he invested *New Carthage*, and took it. His Affability and Humanity drew almost all the Nations of *Spain* into the Alliance of the *Romans*. The *Carthaginians* were obliged to abandon that rich and fruitful Country; and *Scipio*, not yet satisfied with so glorious a Triumph, pursued them even into *Africa*. Every thing gave way to his superior Valour and Abilities. The Allies of the *Carthaginians* forsook them, their Armies were defeated, and that haughty Republic was now made to tremble in its Turn. Even the victorious *Hannibal*, who had maintained his Ground in *Italy* for sixteen Years in spite of all the Efforts of the *Romans*, was found unable to stop the Progress of this young Conqueror: *Scipio* defeated him in a pitched Battle, and forced the *Carthaginians* to submit to the Terms of Peace he had prescribed to them. In this Manner ended the second *Punic*

3802. War in the 552d Year of the City, just 17 Years after its Commencement. *Scipio* was honoured with the Surname of *Africanus*; and *Rome*, having thus subjected the *Gauls* and *Africans*, saw no Rival from whose Power she had Reason to apprehend any Danger.

If we now look back a little into the Affairs of *Asia*, which, during the Times we have been speaking of, were intirely disjointed from those of *Europe*, we find that about the Middle of the first *Punic* War, while *Antiochus Theos* King of *Syria*, the Son of *Antiochus Soter*, was engaged in a War with *Ptolemy* King of *Egypt*, *Theodotus* Governor of *Bactria* revolted, and declared himself King of that Province. It was now a rich and populous Country, and had in it no less than a thousand Cities, all which he got under his Obedience; and, while *Antiochus* delayed to look that Way by reason of his Wars with *Egypt*, made himself too strong in them to be afterwards reduced. This Example was followed by almost all the other Nations

Nations of the *East*, particularly the *Parthians*, who, headed by *Arfaces*, expelled the *Macedonians*, and laid the Foundations of an Empire which in Time extended itself over all the *Higher Asia*, and grew to that Strength and Power, that not even the *Romans* themselves, when arrived to their highest Pitch of Grandeur, were able to shake the Throne of the *Arfacidæ*, for so the *Parthian* Kings were called, from *Arfaces*, the Founder of their Race and Empire. These Revolts greatly weakened the Empire of the *Syrian* Kings, for henceforth they were almost intirely secluded from all the Provinces that lay beyond the *Tigris*. Several Attempts were indeed made to recover them, but in vain, which obliged them to turn their Thoughts towards those Parts of their Dominions that bordered upon *Egypt*; in-  
 3754.  
 somuch that *Judea*, which lay between the two Kingdoms, became a Ground of endless Wars and Contentions, and occasioned the Shedding of Torrents of Blood. The *Romans*, after the Peace with *Carthage*, began to turn their Thoughts towards *Greece*. *Philip* King of *Macedon* had entered into an Alliance with *Hannibal* when in *Italy*, and this was looked upon as a sufficient Ground for a War. The Consul *Flaminius* was sent against him, who, by  
 3808.  
 his Victories, reduced the Power of that Prince, and restored the several Cities of *Greece* to their Liberty. Though every thing thus gave Way to the *Roman* Power, they could not yet be easy while *Hannibal*, whom they still looked upon as their most formidable Enemy, was alive. They dreaded the Bravery and enterprising Genius of that great Man. Their Endeavours to destroy him brought upon them a new War; for, being reduced to fly his Country, he took Refuge with *Antiochus*, surnamed the *Great*, King of *Syria*; and, inspiring him with the Jealousy of the *Roman* Power, persuaded him to oppose their growing Greatness. In the Management of the War, however, he rejected the wise Counsels of this experienced General, and was therefore disappointed in all his Designs. Beaten by Land and Sea, he was compelled to submit to the Terms of Peace imposed by *Lucius Scipio*, the Brother of *Scipio Africanus*.  
 3815.  
*Hannibal* now sought Protection from *Prusias* King of *Bithynia*, where finding himself still persecuted by Ambassadors from the *Romans*, to avoid falling into their Hands, he ended his Days by a Dose of Poison. Upon the Death of *Seleucus*, the Son of *Antiochus the Great*, *Antiochus Epiphanes*, who had been some time a Hostage at *Rome*, got Possession of the Throne of *Syria*. He is remarkable for setting on foot  
 A a 2  
 a cruel



a cruel Persecution against the *Jews*, which driving them to Extremities, many of them united in their own Defence under *Matthias*, the Father of *Judas Maccabeus*, so renowned for the many Victories he obtained over the numerous Armies of the King of *Syria*. In the mean time *Perseus* had succeeded *Philip* in the Kingdom of *Macedonia*, and, presuming too much on his Wealth and numerous Armies, ventured to engage in a War with the *Romans*. But he was soon made

sensible of his unequal Strength; and, being van-  
 3836. quished in Battle by *Paulus Æmilius*, was constrained to surrender himself into his Hands.

Thus the Kingdom of *Macedon*, which had for near two hundred Years given Masters not only to *Greece* but to all the Kingdoms of the *East*, was now reduced to the Form of a *Roman* Province, which leads us to the tenth and last Period of our History.

P. Let me here stop you a Moment, to inquire why you fix the Beginning of the *Roman* Empire to this Period, when they were evidently long before the most powerful People in the World, and had given Laws to *Europe*, *Asia*, and *Africa*.

G. The *Roman* Greatness indeed commenceth properly from the total Reduction of *Italy*, and the Superiority they gained over the *Carthaginians* in the first *Punic* War. Nevertheless, in regulating the Succession of the great Empires, the most natural Order seems to be that which represents them rising one after another, and establishing each its Power and Greatness upon the intire Ruin of that which went before. This is the Method I have hitherto followed, and indeed the only one that, according to my Apprehension, preserves a due Order and Distinctness in ancient History. Thus, though upon the Death of *Sardanapalus*, the *Assyrian* Monarchy was dissolved, yet reviving again in the Kings of *Nineveh* and *Babylon*, that Revolution was not considered as the *Æra* of a new Empire; but when the Power of the *Assyrians* was utterly broken, and the Dominion of *Asia* wholly transferred to another People by *Cyrus*, where I fixed the Beginning of the *Persian* Empire. In like manner, though the *Persians* were greatly weakened under *Xerxes* and his Son *Artaxerxes Longimanus*, and forced to accept of such Terms of Peace as *Greece* was willing to grant them; insomuch that the *Greeks* under *Cimon* may be justly said to have given Law to the *Persian* Empire; yet, as that Monarchy still subsisted under Kings of its own, and was not finally subdued till *Alexander* passed with an Army into *Asia*, and overthrew *Darius* in the Plains of *Arbela*, all Historians extend its Duration to the  
 Period

Period we are speaking of. But, after that Defeat, the Sovereignty of *Asia* passing from the *Persians* to the *Macedonians*, here begins the third great Empire, which continued under *Alexander* and his Successors. The same Reasons induced us to lengthen out the Times of the *Macedonian* Greatness to the Defeat of *Perseus* by *Paulus Emilius*; for, though the *Romans* had long before given Laws to *Greece*, and even to the Kings of *Macedon*, yet that Kingdom was not utterly destroyed till the Time of the above Overthrow, when, becoming a Province of the *Roman* Empire, all the Power and Dominion that had formerly belonged to it was transferred to the Conquerors, and *Rome* thereby advanced to the Sovereignty of the World. Thus we have a regular Succession of Empires establishing themselves one upon the Ruins of the other; and, being now arrived at the last and greatest, we shall trace it in its Progress and gradual Advancement, which will compleat the Plan of ancient History, and furnish such a View of past Times as may be sufficient for enabling you to pursue the Train of Ages in an exact connected Series.

In the 4546th Year of the *Julian* Period, which answers to the 586th Year of *Rome*, and the 168th before *Christ*, *Paulus Æmilius* having vanquished *Perseus*, and reduced his Kingdom to the Form of a *Roman* Province, the *Macedonian* Empire ceased, and that of *Rome* succeeded in its Stead. The Consul *Æmilius* was honoured with a splendid Triumph; and the *Romans*, who were now Masters of all *Greece*, began to think themselves more nearly interested in the Affairs of *Asia*. *Antiochus Epiphanes* dying, his Son *Antiochus Eupator*, a Minor of nine Years old, succeeded under the Tuition of *Lyfias*. *Demetrius Soter* the rightful Heir was then an Hostage at *Rome*, but could not obtain Leave of the Senate to go and take Possession of the Kingdom, it being judged more for the Advantage of the *Romans* to have a Boy reign in *Syria*, than a grown Man of mature Understanding, as *Demetrius* then was. Under *Antiochus Eupator*, the Persecution of the *Jews* still continuing, *Judas Maccabeus* set himself to oppose it, and signalized his Valour by the many Victories he obtained over the *Syrians*. Mean while *Demetrius Soter*, escaping from *Rome*, is acknowledged by the *Syrians* for their King, and young *Antiochus* with his Governor *Lyfias* slain. This however made no Alteration with regard to the *Jews*; they were still persecuted as before,

Years of the  
World.

12 Epochs.  
The Defeat  
of *Perseus*.

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and *Demetrius* sending numerous Armies one after another against them, they were all severally defeated by *Judas*; but being at length overpowered by the Multitude of his Enemies, he was slain fighting with astonishing Bravery. His Brother *Jonathan* succeeded in the

Charge of defending the *Jews*, and no less distinguished himself by his Valour, and a Firmness that no Misfortunes were able to shake. The *Romans*, pleased to see the Kings of *Syria* humbled, readily granted the *Jews* their Protection, and declared them their Friends and Allies. *Alexander Balas*, pretending to be the Son of *Antiochus Epiphanes*, and supported by *Ptolemy Philometor* King of *Egypt*, claimed the

3855. Throne of *Syria*; and, having slain *Demetrius*, got Possession of the Kingdom. The *Carthaginians*, who had now recovered in some measure the great Losses sustained during the second *Punic* War, could not by all their Submissions ward off the Jealousy of the *Romans*; who, still dreading the Power of that warlike Republic, declared War against it, with a Resolution of destroying it utterly, that they might rid themselves for ever of so formidable a Rival.

In *Syria*, *Demetrius Nicator*, the Son of *Demetrius Soter*, setting himself to recover his Father's Kingdom, vanquished

3858. *Alexander Balas* in Battle, and got Possession of the Throne. This same Year was rendered famous by the Destruction of two celebrated Cities, *Carthage* and *Corinth*. The former was taken by

*Scipio Emilianus*, after a War of three Years, who thereby confirmed the Surname of *Africanus* in his Family, and revived the Glory of the great *Scipio* his Grandfather. *Corinth* was reduced to Ashes by *L. Mummius* the Consul, and with it ended the famous *Achean* League. This Confederacy in Defence of Liberty had some time before risen to great Renown by the Valour and Abilities of *Philopæmon*, one of the most renowned Generals that *Greece* ever produced. And indeed after him we read of no other of that Nation who distinguished himself by any eminent Accomplishments; which made the Hero we are speaking of to be stiled, as *Plutarch* tells us, *The last of the Greeks*. After his Death the *Achean* League no more supported itself with the same Reputation as formerly; and, the *Romans* growing jealous of it, it was this Year, as we have seen, dissolved by the Destruction of *Corinth*. All the famous Statues, Paintings, and other curious Works of Art, wherewith that City had been so richly adorned, being upon this Occasion transported to *Rome*; these Masters of the World, who had hitherto boasted of no other Knowledge than



than that of War, Politics, and Agriculture, began henceforth to value themselves upon a polite Taste, and the Relish of what was excellent in the fine Arts. Thus Learning became honourable at *Rome*, the liberal Sciences were encouraged, and such Advances were made in all the various Branches of Knowledge, that we shall see the *Augustan Age* no less distinguished by the Productions of the Men of Genius, than by the Exploits and Bravery of the many Heroes wherewith it abounded. *Syria* in the mean time was the Scene of new Revolutions. *Antiochus Theos*, the Son of *Alexander Balas*, under the Tuition of *Diodotus Tryphon*, dethroned *Demetrius Nicator*, who, by his ill Conduct in the Government, had incurred the Hatred of his Subjects. He recovered his Authority however soon after, and declared *Judea* a free and independent State, in Consideration of the Services he had received from *Simon*, the Brother and Successor of *Jonathan*. By this Grant *Simon* was constituted High Priest and Sovereign Prince of the *Jews*, the Land released from all Taxes, Tolls, and Tributes, and every thing that bore the Stamp of a foreign Yoke being abolished, *Judea* henceforth became a distinct Kingdom, under Princes of its own. About this Time the Empire of the *Parthians* began to grow formidable, by the Victories of *Mithridates*, who, having subdued *India* and *Bactria*, was advancing with an Army towards the *Euphrates*, to push his Conquests on that Side. Whereupon the Inhabitants of those Parts, calling in *Demetrius Nicator* to their Assistance, he conceived the Design of again reducing the *Parthians*, whom the *Syrians* still regarded as Rebels. He obtained many Victories over *Mithridates*; but preparing to return into *Syria* to chastise *Tryphon*, who, after murdering *Antiochus Theos*, had himself usurped the Crown, he unfortunately fell into an Ambuscade, and was made Prisoner by the *Parthians*. *Tryphon*, who thought himself secure by this Disaster of his Adversary, was suddenly abandoned by his Subjects, to whom he had rendered himself insupportable by his Pride. As *Demetrius* was still a Prisoner in *Parthia*, and his Children by *Cleopatra* were under Age, it was necessary to look out for a Protector, and this Office naturally fell to the Share of *Antiochus Sidetes*, the Brother of *Demetrius*. But *Cleopatra* stopt not here; for understanding that *Nicator* had married *Rodaguna*, the Daughter of *Phraates*, who had succeeded *Mithridates* in the Throne of *Parthia*, she out of Revenge made *Antiochus Sidetes* her Husband. When he had settled himself in the Kingdom, and put an End to the Usurpation of *Tryphon*, he entered upon

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a War with the *Parthians*, under Pretence of delivering his captive Brother. At first he had full Success, overthrew *Phraates* in three Battles, and recovered *Babylon*, *Media*, and the other Eastern Provinces formerly belonging to the *Syrian* Kings, *Parthia* only excepted, where *Phraates* was reduced within the narrow Limits of the first *Parthian* Kingdom. The *Parthian* Monarch, not discouraged by these Losses, watched the Opportunity of the *Syrian* Army's going into Winter-Quarters, where, being obliged to disperse all over the Country by reason of their great Numbers, he fell upon them unexpectedly; and advancing against *Antiochus*, who was hastening with the Forces about him to help the Quarters that lay next him, he overpowered him with Numbers, slew him and all his Followers, and, pushing his Advantage, made so dreadful a Slaughter, that there scarce returned a Man into *Syria* of all this numerous Army to carry thither the mournful News of so terrible an Overthrow. In the Interim *Demetrius* was returned into *Syria*, and on his Brother's Death there again recovered the Kingdom. For *Phraates*, after being thrice vanquished by *Antiochus*, had released him from his Captivity, and sent him back into *Syria*; hoping that, by raising Troubles there for the Recovery of his Crown, he might force *Antiochus* to return for the suppressing of them: But on the obtaining of this Victory he sent a Party of Horse after him to bring him back again. *Demetrius*, being aware hereof, made such Haste, that he was gotten over the *Euphrates* into *Syria* before these Forces could reach the Borders of that Country, and by this means again recovered his Kingdom. But he was soon dispossessed by *Alexander Zebina*, the Son of *Balas*, who was in his Turn vanquished and expelled by *Antiochus Gryphus*. The Succession of the Kings of *Syria* being very perplexed by reason of the intestine Divisions of that Kingdom, and the many different Pretenders to the Crown, has obliged me to be somewhat particular in their History, to prevent Confusion. Let us now turn our Eyes towards the *Romans*, whom we find engaged in a War with the *Numantines* in *Spain*, and so often defeated, that they were obliged to send *Scipio Æmilianus*, as their last Resource and Hope, before they could subdue that warlike People. They were also about the same Time in no small Danger of an Insurrection of their own Slaves in *Sicily* under *Eunus*, insomuch that they were obliged to employ the whole Forces of the Republic against them. *Attalus* King of

of *Pergamus* dying, left the *Romans* Heirs to his immense Wealth, who, not satisfied with the Dominion of *Italy*, *Greece*, and *Africa*, were now beginning to extend their Conquests beyond the *Alps*, where *Sextius*, having subdued the *Saluvians*, established the first *Roman* Colony at *Aix* in *Provence*. *Fabius* defeated the *Allobrogians*; and *Narbonese* Gaul was reduced into the Form of a Province. But, though the Republic was thus enlarging her Territories abroad, she was far from enjoying that domestic Tranquillity which makes the Security and Strength of a State. The Avarice, Usurpation, and Ambition of the *Patricians* had encroached so far upon the Properties and Privileges of the People, that they stood in need of new Defenders to save them from absolute Ruin. The two *Gracchi*, who generously undertook that Office, being overpowered by the Faction of the Nobility, perished in the glorious Attempt. After them, few Tribunes arose possessed of that noble Spirit of Liberty, which hitherto makes so eminent a Part of the Character of this brave People. Faction, Bribery, and Corruption, began to prevail universally among them; and we shall soon see these Conquerors of the World themselves made Slaves to the worst of Tyrants. *Jugurtha* King of *Numidia*, infamous by the Murder of his Brothers, who had  
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been left under the Protection of the *Romans*, defended himself a long time, more by his Largesses than by Arms. *Marius* was at length sent against him; and, having put an End to that troublesome War, signalized himself next by the Defeat of the *Teutones* and *Cimbri*, who threatened all the Provinces of the *Roman* Empire, and even *Italy* itself, with Destruction. No sooner were  
3904.  
these Enemies quelled, than a new and more formidable one arose in *Mithridates* King of *Pontus*, who, having made himself Master of all *Asia Minor*, passed into *Greece*, and was not without great Difficulty driven thence by *Sylla*. Mean while *Italy*, habituated to Arms, and exercised in War, endangered the *Roman* Empire by an universal Revolt; and, to add to all those Calamities, *Rome* saw herself at the same time torn  
3913.  
by the Factions of *Marius* and *Sylla*, one of whom had by his Victories spread his Fame to the remotest Quarters of the North and South, and the other signalized himself as the Conqueror of *Greece* and *Asia*. *Sylla*, stiled the *Fortunate*, was but too much so against his Country, over which he assumed a tyrannic Sway, and laid the Foundation of all  
the



the ensuing Troubles by the unhappy Precedent  
 3925. of his perpetual Dictatorship. Every one in his  
 Turn aimed at Dominion. *Sertorius*, a zealous  
 Partisan of *Marius*, fixed himself in *Spain*, and entered into  
 a Treaty with *Mithridates*. It was in vain to think of op-  
 posing Force to a General of his Reputation and  
 3931. Experience; and *Pompey* himself could no other-  
 wise master him, than by introducing Dissentions  
 among his Followers. *Rome* found a yet more formidable  
 Enemy in *Spartacus* the Gladiator, who brought her to the  
 very Brink of Ruin, and was found invincible till the great  
*Pompey* was sent against him. *Lucullus* in the  
 3936. mean time made the *Roman* Arms to triumph in  
 the *East*. *Mithridates* was beaten in every En-  
 counter, and, retiring beyond the *Euphrates*, found himself  
 still pressed and pursued by his victorious Enemy. But this  
 General, invincible in Battle, found it impossible to retain the  
 Soldiers in Obedience, and repress that Licentiousness which  
 like a Phrensy seized the whole *Roman* Army. *Mithridates*,  
 not discouraged by his many Defeats, was again preparing to  
 make head against his Enemies; and *Pompey*, the last Hope and  
 Refuge of the *Romans*, was thought alone capable of termi-  
 nating this long and destructive War. It was on this Occa-  
 sion that his Glory rose to the highest; he finally subdued this  
 valiant and politic Prince, reduced *Armenia* whither he had  
 fled for Refuge; and, pursuing his Advantage, add-  
 3941. ed *Albania*, *Iberia*, *Syria*, and *Judea* to the *Ro-*  
*man* Empire. While *Pompey* was thus employ-  
 ed in gathering Laurels in the *East*, *Cicero* was intent on  
 crushing a dangerous Conspiracy at home. That renowned  
 Orator, who had laid out so much of his Time in the Study  
 of Eloquence, found now a glorious Opportunity of exert-  
 ing it in Defence of his Country; and by it, more than by the  
 Arms of his Colleague *Antony*, were the dark and dangerous  
 Machinations of *Catiline* defeated. Could *Rome* have been  
 saved from Slavery, the Eloquence of *Cicero*, and the Vir-  
 tue of *Cato*, those intrepid Defenders of Liberty and the  
 Laws, seemed to offer fair for it. But their Efforts  
 availed little to save a State that was rushing headlong in-  
 to Ruin; and where Luxury, Ambition, and Avarice,  
 getting universal Possession of the Minds of Men, render-  
 ed them insensible to all great and generous Designs, and  
 wholly stifled the noble Spirit of Freedom. *Pompey* reigned  
 without a Rival in the Senate, and his great Authority and  
 Power

Power made him absolute Master of all its Deliberations. *Cæsar*, by his Victories in *Gaul*, was endeavouring to get him a Name and Interest that might bring him upon a Level with *Pompey* and *Crassus*. These three, combining in the Design to oppress their Country, governed with absolute Authority; and *Cicero*, whose Eloquence and Zeal for Liberty gave them Umbrage, was banished that City he had so lately saved from utter Ruin. In the mean time *Crassus*, being bent upon an Expedition against the *Parthians*, had the Misfortune to be cut off with his whole Army; a Loss by so much the more fatal to the *Roman* State, as it was chiefly by him that the Rival Factions of *Cæsar* and *Pompey* were kept united. His Death was followed by a bloody Civil War, and *Rome* lost her Liberty for ever in the Plains of *Pharsalia*. *Cæsar*, victorious, and now Master of the Universe, traversed with incredible Expedition almost all the Countries of the known World. *Egypt*, *Asia*, *Mauritania*, *Spain*, &c. beheld this mighty Conqueror triumphing over all his Opposers. *Brutus* and *Cassius*, animated by a Zeal for Liberty, endeavoured to rescue their Country from Slavery by killing the Usurper; and the Eloquence of *Cicero* seconding the glorious Design, gave at first some Hopes that *Rome* might yet see better Days. But it was the Fate of that unhappy City to fall soon after into the Hands of *Antony*, *Lepidus*, and young *Octavius*, who by their bloody Proscriptions almost totally extirpated the *Roman* Nobility. Even *Cicero*, whose Credit with the Senate had chiefly contributed to the Advancement of *Octavius*, was abandoned by that ungrateful Monster to the Resentment of *Antony* his implacable Enemy. In the Division of the Empire, *Italy* and *Rome* fell to the Share of *Octavius*, who, affecting to govern with great Clemency and Moderation, endeavoured to throw the Odium of all the late Cruelties upon his Collegues. In fine, *Brutus* and *Cassius*, the last Refuge of the Republic, both falling in the Battle of *Philippi*, *Rome* after them never made so much as an Effort for the Recovery of her Liberty, but quietly submitted to the Dominion of the Conquerors. They did not however remain long united. *Antony* and *Cæsar*, combining to ruin *Lepidus*, turned next their Arms one against the other. The Battle of *Actium* decided the Empire of the World in favour of *Cæsar*; for *Antony*, upon that Disaster, was abandoned by all his Friends, and even by his beloved *Cleopatra*, for whose sake he had brought all these

these Misfortunes upon himself. *Herod the Idumean*, who owed his All to that General, was constrained to submit to the Conqueror, and thereby confirmed himself in the Possession of the Throne of *Judea*. Thus did *Octavius* triumph over all Opposition: *Alexandria* opened its Gates to him; *Egypt* became a *Roman Province*; *Cleopatra*, disdaining  
 3977. to adorn the Victor's Triumph, ended her Days by Poison; and *Antony*, sensible that he could no longer withstand the Power of his Adversary, by a voluntary Death left *Cæsar* in the unrivalled Possession of the *Roman Empire*. This fortunate Prince, under the Name of *Augustus*, and with the Title of Emperor, took Possession of the Government. Thus was the *Roman Commonwealth*, 727 Years after the Foundation of that City by *Romulus*, converted into an absolute Monarchy. *Augustus* now set himself to reform the many Abuses that had crept into the State during the Wars; and, knowing that the Republican Spirit of the *Romans*, tho' greatly weakened, was not yet altogether broken, he endeavoured, by the Mildness and Justice of his Government, to reconcile his Countrymen to that Power which it was in vain for them any longer to oppose. With this View he introduced among them Learning and the polite Arts, which, by the Encouragement they met with from him and *Mæcenas*, began to lift up their Heads and flourish. *Horace*, *Virgil*, *Ovid*, and *Livy*, adorned the Age we are speaking of, and do it more Honour by their inimitable Writings than all the Victories of the Prince under whom they lived. Eloquence alone, of all the several Branches of Literature, lay uncultivated. That expired with *Cicero* and the free State: Nor need we wonder at it; since Liberty, which had hitherto animated the Orator, ceasing, the Art itself became useless, and was regarded with an Eye of Jealousy by the Men in Power. *Augustus*, having by this wise and politic Management secured the Tranquillity of *Italy* and *Rome*, began to look abroad into the Provinces, with a View to check the Enemies of the *Roman Name*, who, taking Advantage of the intestine Divisions of the Empire, had committed many Outrages. He subdued the *Cantabrians* and *Asturians* bordering upon the *Pyrenees*: *Ethiopia* sued for Peace: The *Parthians*, dreading his Power, sent  
 3980. back the Standards taken from *Crassus*, and all the *Roman Prisoners* in their Hands: *India* sought his Alliance: *Pannonia* submitted to his Power; and *Germany* trembled



trembled at the Name of this mighty Conqueror. Victorious every-where, both by Land and Sea, 4004. he shut the Temple of *Janus*, and gave Peace to all the *Roman* Empire. This happened in the 754th Year after the Building of *Rome*, and the 4714th of the *Julian* Period, which coincides with the first Year of the *Christian* Æra, according to the Computation in use in these Western Parts.

I have now compleated my original Design, which was to lay before you a short View of ancient History from the Creation of the World to the Birth of *Christ*. I have thrown together all the material Transactions of the different Nations of the World, and, by referring them as near as possible to the Years in which they happened, have, I hope, given you a pretty distinct Notion of the coincident Periods of History. By keeping this general Plan constantly in Mind, you will be enabled to read either ancient or modern Writers upon this Subject with all the Advantage to yourself you can desire. For whether they make Choice of a longer or shorter Portion of Time within which to limit their Detail of Transactions, or in whatever Order different Authors occur to your Study, the Knowledge you have of the general Course of Ages, and to what Part of universal History every particular Period belongs, will preserve all your Acquisitions unconfused, and enable you to digest your whole Treasure of Reading under those Heads and Divisions to which each Part properly refers. Nor is this an Advantage to be lightly accounted of, inasmuch as Men, according to their different Views and Aims in Life, find it their Interest sometimes to apply themselves more particularly to one Part of History, and sometimes to another; in which Case nothing is more useful, than such a general View of Things as shall enable them to connect and tie together those several Parts of Knowledge which Interest or Necessity has at different Times added to their Stock of Learning. This is so evident that I need not enlarge upon it; and therefore, having now finished all I intended on this Part, I shall here conclude the Head of History and Chronology.



## P A R T V.

## \* R H E T O R I C

A N D

## P O E T R Y.

## C H A P. I.

*RHETORIC is the Art or Faculty of Speaking and Writing with Elegance and Dignity, in order to instruct, persuade, and please. Grammar only teaches Plainness and Propriety: Rhetoric lays these for its Foundation, and raises upon them all the Graces of Tropes and Figures. Elegance consists in the Purity and Clearness of the Language. Purity requires choice and proper Words; a Command of which may be gained by studying the best Authors, by conversing with refined Company, and by frequent and careful Composition: To obtain Perspicuity or Clearness, a full Knowledge of our Subject, and frequent close Meditation upon it, are necessary. You must likewise avoid ambiguous Words, a dry Brevity, a confused Length of Periods, and too large a Train of Metaphors together. Dignity arises from sublime Thoughts, noble Tropes, and moving Figures. Tropes alter and affect single Words: Figures affect and enliven whole Sentences.*

\* I found this Subject so concisely and sensibly handled by Mr. Blackwell, in the second Part of his Introduction to the Classics; that, despairing to get any thing better, or more to my Purpose, I prevailed with the Proprietor of the Book to give me Leave to make such use of it as should be thought proper. Some small Alterations therefore have been made: and many Examples from the Poets, to explain and illustrate the Rules, exchanged or added; in which last Particular alone this Treatise seemed defective.

A Trope



*A Trope is a Word removed from its first and natural Signification, and applied with Advantage to another Thing, which it does not originally mean; but only stands for it, as it has Relation to or Connexion with it:* As in this Sentence, *God is my Rock.* Here the *Trope* lies in the Word *Rock*; which, it is plain, in its primary and proper Sense signifies nothing less than the Hope and Trust Mankind have in that *admirable Being*: Yet, because a Rock is firm and immoveable, and a Building founded on it will not sink, it excites in our Minds the Notion of *God's* unfailing Power, and the steady Support which good Men receive from their Dependence on him. The Necessity and Use of *Tropes* will be made plain in a few Words.

1. No Language furnishes us with a sufficient Number of proper and plain Words fully to express all our Thoughts. The *Mind* of Man is of an astonishing Capacity, and has a numberless Store of Notions; therefore, being often distressed for want of allowed and proper Terms to utter her Conceptions in, she turns Things all Ways; considers them in their different Relations; and views them in all their various Aspects and Appearances; that she may be enabled to declare her Meaning in suitable Terms, and communicate herself intelligibly and *forcibly* to Persons she has Conversation with. When we know not a Man's Name whom we have occasion to speak of, we describe him by his Features, Profession, Habit, Place of Abode, Acquaintance, and other Circumstances; till by such a Description he is as well known to the People we speak to, as if we had at first given him his peculiar Name, and distinguishing Title.

2. *Tropes* are used for the sake of an agreeable Variety; they divert the Mind, and revive Attention when it begins to flag and be weary. In many Cases there is an absolute Necessity for the *Writer* or *Speaker* to repeat the same thing several times; therefore, to prevent the Offence which the Repetition of it in the same Words might probably give, he carefully diversifies his Expression, and judiciously intermixes plain and figurative Language. So he carries on his *Reader* or *Hearer* with such continual Pleasure, that he is insensible of the Length of the Discourse; and, when it is concluded, only wishes it had been longer. As a Traveller, if he has a good Road and fair Weather; if he be entertained, as he passes along, with Variety of Landscapes, and pleasant Prospects of Groves, Meadows, Parks, and fine Houses; never considers or regrets the Length of the Way, but comes in fresh and chearful to his Journey's End. *Tropes* increase the Stores of

Lan-

Language, by exchanging or borrowing what it has not; it is by the Help of *Tropes* that nothing in *Nature* wants a Name.

3. *Tropes* add wonderful Ornament and Emphasis to a Discourse; and often give the *Mind* a brighter and stronger *Idea* of a Thing than proper Words. We receive much of our Knowledge into the *Mind* by the outward Senses; and *Comparisons*, drawn from Things sensible and pleasant, come easy and agreeable to the *Mind*, as exempting it from that severe Study and Application which is necessary for the Discovery of those Truths which do not immediately fall under the Notice of our Senses. Such are the Properties and sublime Powers of human *Souls*, the Attributes and Majesty of *Almighty God*, which are in themselves the most venerable Truths of Nature, and of the highest Importance to Mankind. A good and beautiful *Trope* often gives us a clearer Apprehension of these Things than large Discourses that are obscured and cumbered by perplexed Reasoning and endless Divisions. *Virgil*, calling the two *Scipio's* the *Thunder-bolts* of War, represents the rapid Speed and victorious Progress of their Arms with more Emphasis than all the plain Terms of the *Roman* Language could have done. When, to describe the Pleasantness of a rich Harvest, the *Writer* says, the Fields *laugh and sing*, he raises in the Mind a more gay and delightful Imagination both of the Fruitfulness of the Crop and the Cheerfulness of the Season than a long and particular Relation in the best-chosen plain Words could have raised. *Tropes*, at first, in the rude Times of the World used for Necessity, were soon found to be ornamental, and to give Strength and Gracefulness to the Turn of Men's Thoughts. As Garments, first put on for the necessary Defence of the Body against the Severities of the Weather, were quickly found to be serviceable to set off the comely Proportions, and add to the Dignity of the Body itself.

4. Mankind are mightily pleased with a happy and beautiful *Trope*, because it expresses the Boldness and Felicity of an *Author's* Fancy, which is not content with Things near and vulgar only, but steps out of the common Way to fetch in something noble, new, and surprising. By an expressive and beautiful *Trope* a fresh Notion is started to entertain the Mind; and yet it is not taken off from the Subject before it, only sees it placed in a better and stronger Light. That you may make use of *Tropes* seasonably and with Advantage, these following Directions may be carried in Mind.

1. Be sparing and cautious in the Use of them; and omit them when they are not either as plain as proper Words, or more expressive. *Tropes* are the Riches of a *Language*, and therefore it will be an Imputation upon a Man to lavish them away without Discretion. Too thick a Crowd of them encumber a Discourse, and make it obscure and heavy; and that is just contrary to the Nature and Design of *Tropes*; which is, to illustrate dark Truths, and relieve the labouring Thoughts.

2. Care must be taken that *Tropes* hold a Proportion to the *Ideas* intended to be raised by them. And this may be taken in two Senses. First, there ought to be an easy and unforced Relation betwixt the *Trope* and the proper Word it is put for, or the Thing intended to be expressed by it. When there is not this Suitableness and Relation, the Expression at best will be harsh and unpleasant, but often barbarous and ridiculous. Such was the Saying of the *Roman* expos'd by *Tully*:—"The *Commonwealth* was castrated by the Death of *Cato*." The Connexion between the *Trope* and the proper Word ought to be so close and evident, that the one cannot be well mentioned without raising the *Idea* of the other. This Connexion is either natural or artificial. *The natural is, when the Things expressed by their proper and metaphorical Names naturally resemble one another.* When it is said a Man has Arms of Brass, that Expression readily and naturally conveys to one's Understanding a Notion of the extraordinary Strength and Firmness of that Man's Arms. *The artificial Connexion depends upon Use and established Custom.* The *Turks* are generally esteemed a barbarous and cruel People; a rude and unrelenting Person is by Custom called a *Turk*; and the frequent Use of it in this Sense makes the *Idea* of the Word *Turk* raise in the Mind the *Idea* of a rude and unrelenting Man. The other Way of preserving the Proportion above-mentioned is, that a *Trope* do not express more or less than the Thing requires: That Things capable of Heightening and Ornament be not debased and vilified by low Expressions; nor small Matters over-magnified by pompous and swelling Words. *Euripides* is censured by *Aristotle* for calling Rowing the Exercise of the Empire of the Oar: And so may *Cato* for calling a Hill covered with Brakes and Thickets by the Name of a Wart. But if a *Trope* seem to be a little harsh, and yet is necessary and very significant, you may mollify and smooth it by a good *Epithet*; or, in few Words without Formality, begging the *Reader* or *Hearer* to pardon the Expression.



3. A *Trope* ought to be obvious and intelligible; and therefore must not be fetched from Things too remote, so as to require much Reading and Learning to apprehend it. If a Man, speaking of a House of Debauchery, says it is a dangerous Rock of Youth, the Relation lies plain to an ordinary Capacity: But if he calls it the *Syrtes* of Youth, it is far-fetch'd and obscure, because few know that the *Syrtes* are Sands on the Coast of *Afric*, which inevitably swallow up all the Ships that fall into them.

4. No *Tropes* are to be used which convey a sordid or lewd *Idea* to the Mind. Vile and debauched Expressions are the sure Marks of an abject and groveling Mind. He who so far forgets the Design and Dignity of Speech as to endeavour to poison and debauch by it, instead of instructing in Virtue, and pleasing Men in order to do them good, acts against Reason and all the Decencies and Modesty of *human Nature*.

To conclude, *Tropes* and *metaphorical* Expressions are used either for *Necessity*, *Emphasis*, or *Decency*. For *Necessity*, when we have not proper Words to declare our Thoughts; for *Emphasis*, when the proper Words we have are not so comprehensive and significant; for *Decency*, when plain Language would give Offence and Dislike to the Reader.



## CH A P. II.

*Containing a particular Account of the chief Tropes of Language.*

§ 1. **M**etaphor is a *Trope* by which we put a strange Word for a proper Word, by reason of its Resemblance and Relation to it. All *Tropes* are in strict Speaking *Metaphors* or *Translations*; yet this is more peculiarly called so, by reason of its constant Use and peculiar Beauty. But more plainly to distinguish this particular *Trope* from the general Name, it may be thus defined: *A Metaphor is a Simile or Comparison intended to enforce and illustrate the Thing we speak of, without the Signs or Forms of Comparison.* Thus if we say, God is a Shield to good Men; it is a *Metaphor*, because the Sign of *Comparison* is not express'd, tho' the Resemblance, which is the Foundation of the *Trope*, is plain: As a Shield guards him that bears it against the Attacks and Strokes of an Enemy; so the Providence and Favour of God protect good

good Men from Malice and Misfortune. But if the Sentence be put thus, *God is as a Shield to good Men* – then it becomes a *Simile* or *Comparison*. So, in short, a *Metaphor is a stricter or closer Comparison*, and a *Comparison a looser and less compact Metaphor*. The *Metaphor* is very vigorous and beautiful in that noble Passage of my Lord Roscommon<sup>a</sup>;

*For who did ever in French Authors see  
The comprehensive English Energy?  
The weighty Bullion of one sterling Line,  
Drawn in French Wire, wou'd thro' whole Pages shine.*

This *Trope* may be taken from any thing which is the Object of any of our Senses; but that is generally the most agreeable and sprightly which arises from the Sense of *Seeing*: Because of all the Senses *Seeing* is the most perfect and comprehensive; the most unwearied and inquisitive; the most desirable and delightful. That is a fine Passage of Archbishop Tillotson<sup>b</sup>, “Piety and Virtue in Persons of eminent Place and Dignity” are seated to great Advantage, so as to cast a Lustre upon “their very Place, and by a strong Reflection double the “Beams of Majesty.” This lively Way of Expression is of extraordinary Use in *Descriptions* of considerable Length; it keeps the Mind pleased, and the Attention awake. If therefore an *Author* is obliged to give a large Account of Things plain and of common Observation, he must raise and ennoble them by strong and graceful *Metaphors*.

This Rule Tully has observed, in his Description of the several Parts of this habitable World, in his Books concerning the *Nature* of the *Gods*. So has Virgil in his *Georgics*; where he has made his meanest and coarsest Subjects fine and admirable by his judicious Use of *Metaphors*. The little Affairs of Shepherds and Farmers in his perfect Lines appear with Dignity. His Descriptions make the Country a Paradise; and his Touch, as a noble Wit<sup>c</sup> expresses it, turns every thing into Gold. These are admirable and very beautiful *Metaphors* when the Properties of rational Creatures are applied to Animals, and those of Animals to Plants and Trees: This Way of treating a Subject gives Life and Beauty to the whole Creation. We receive the strongest Pleasure from those bold and

<sup>a</sup> *Essay on Translated Verse*, ver. 51, &c.

<sup>b</sup> *Sermons*, Folio, Lond. 1696, p. 4.

<sup>c</sup> Boileau.

comprehensive *Metaphors*, which, besides the Illustration of the Subject they are intended to raise and improve, convey to us a fresh and lively Image.

Thus *Agamemnon* (after all his Dangers, murdered by the Hands of Villains in his own Kingdom) is not said barely to die, but to end

—*the sad Evening of a STORMY Life.*

I know no Case in which *Metaphors* of a bold Sound are more proper than in arrogant Speeches, when Men defy the Gods, or quarrel with the Dispensations of Providence. *Philæti* in the *Odyssey* is no arrogant Character; yet in one Place (upon considering the Afflictions of his Prince, whose Piety and Virtue he was so well assured of) he falls into a Rant against Providence, in which the Language is as lively and vigorous as the Sentiment is ill-grounded and absurd.

O Jove! for ever deaf to human Cries,  
The Tyrant, not the Father of the Skies!  
Unpious of the Race thy Will began;  
The Fool of Fate, thy Manufacture, Man,  
With Penury, Contempt, Repulse, and Care,  
The GALLINO LOAD of Life is doom'd to bear.

§ 2. Allegory is a Continuation of several *Metaphors* all through the same Sentence or Discourse, when one thing is said, and something different is understood.

Did I but purpose to embark with thee  
On the smooth Surface of a Summer's Sea,  
While gentle Zephyrs play with prosp'rous Gales,  
And Fortune's Favour fills the swelling Sails;  
But would forsake the Ship and make the Shore,  
When the Winds whistle, and the Tempests roar<sup>d</sup>?

The Use of an *Allegory* is to convey our Meaning under disguised Terms, when to speak it out in plain may not be so safe, so seasonable, or effectual upon the Person we design to instruct by it. It is often likewise used for Magnificence and Loftiness, to raise Wonder and gratify Curiosity.

To prevent Confusion, and Want of Decorum and Propriety in a Discourse, an *Allegory* must end as it begun; and

<sup>d</sup> Prior's *Henry and Emma*, p. 187 of *Poems*, Lond. 1711.



the same *Metaphor* which was chosen at first, be continued to the last. Several *Allegories* may be brought into one Discourse at a small Distance one from another; but every Particular must be in a Sentence distinct from the rest, and must admit nothing foreign. To this may be referred *Apologue* or *Fable*, which is ascribing the Actions, Passions, and Discourse of Mankind to the irrational and even inanimate Creation, with a Design to instruct and affect People with a useful *Moral* dexterously conveyed.

§ 3. *Metonymy* is a *Trope* whereby one Name is put for another, which it may properly stand for by reason of the near Relation or mutual Dependence there is between both.

————as Jupiter

On Juno smiles, when he impregns the Clouds,  
That shed May flowers——<sup>c</sup>.

By this *Trope* any of the most significant Circumstances or Appendages of a Thing are put for the Subject or chief Thing to which they belong, or on which they depend. But I think this *Trope* is used with much more Vigour and Advantage in the following Cases.

1. When the Narration or Counsel stands for the Action, and what the *Poet* or *Historian* describes he is said to do; which is a vehement Way of Expression, exceeding the common as much as Action goes beyond Description; and Life excels Painting.

Against bold Turnus the great Trojan Arm,  
Amidst their Strokes the Poet gets no Harm;  
Achilles may in Epic Verse be slain, &c.<sup>f</sup>

2. When the Name of any Relation is put for the Duty which that Relation requires, and the Benevolence and Tenderness which may be expected from it. *Anacreon*<sup>g</sup>, speaking of Money, says, that through it there's no longer any such thing as Brethren or Parents in the World. When the Love of Riches is the reigning *Passion* in a Man, it banishes Humanity; confounds Right and Distinction; and tramples upon the most sacred and endearing Relations in Nature.

<sup>c</sup> Milton's *Par. Lost*, Lib. iv. 500, 501.

<sup>f</sup> Dryden's *Juvenal*, Sat. i. ver. 145.

<sup>g</sup> *Ode* xlv. ver. 744, 745. Barnes's *Ed.*

3: *Rivers*, which contribute so much to the Plenty and Pleasantness of a Country, are often mentioned by the *Poets* to express the whole Country in which they arise, or through which they take their Course<sup>h</sup>. A Branch of the *Metonymy* is *Antonomasia*, or *Exchange of Names*, which put a significant and emphatical Epithet, Title, or Character, for the proper and most distinguishing Name. The Word which is used for the principal and most proper Name is either taken from the Person's Country, Family, Relation, Profession, personal Circumstances, Resemblance to some other Person, or from the Virtue or Vice for which he is remarkable. *Sardanapalus* was a Monster of Debauchery; *Nero* of Cruelty: Therefore to call a very debauched Person *Sardanapalus*, and a cruel one *Nero*, brands them much deeper than to call one debauched, and the other cruel.

§ 4. *Synecdoche*, or *Comprehension*, is a *Trope* which puts the Name of a Whole for a Part, or of a Part for the Whole; a General for a Particular of the same Kind, or a Particular for a General. By this *Trope* a round and certain Number is often set down for an uncertain one. The *Plural* used for the *Singular* generally gives an Elevation and Turn of Grandeur to the Discourse.

*Leave Earth, my Muse, and soar a glorious Height,  
Tell me what Heroes slew the gallant Hector;  
Cycnus and Memnon, terrible in Arms<sup>i</sup>.*

When it is plain the *Poet* only speaks of *Achilles*; but he uses the *Plural* Number to magnify the Strength and Courage of his *Hero*, and to shew that one such brave Man is of more Value and Importance in War than Troops of common Warriors. The treacherous *Sinon* emphatically uses the *Plural* for the *Singular*, when he would aggravate his Danger of being sacrificed by his Countrymen, and raise the Horror of their Preparations for those inhuman Rites.

*Ye cursed Swords and Altars which I 'scap'd<sup>k</sup>!*

Sometimes a single collective Word expresses Multitudes with more Clearness and Vehemence than *Plurals* would do; as in that Passage of *Herodotus*<sup>l</sup>, when *Phrynichus* represented the

<sup>h</sup> See Theoc. Idyl. iv. 6.

<sup>i</sup> Virg. Georg. iv. 560, 561.

<sup>k</sup> Virg. Æn. ii. 155.

<sup>l</sup> Lib. vi. p. 441.

Destruction of *Miletus* on the Stage, the *Theatre* burst out into Tears. If the Author had said, all the People in the *Theatre* burst out into Tears, who sees not that the Expression would have been comparatively loose and languid?

But, whether *Plurals* be used for *Singulars*, or on the contrary, there is Need of Judgment and great Consideration to discern that the Way of Speaking preferred to the other be in that Place and upon that Occasion more proper and beautiful; that it more strongly describe the Passion, more agreeably diversify and adorn the Period, and more effectually contribute to the Surprize and Pleasure of the Reader.

§ 5. Hyperbole is a Trope that goes beyond the Bounds of strict Truth, in representing Things greater or smaller, better or worse, than really they are, in order to raise Admiration or Love, Fear or Contempt.

————— Camilla

*Outstript the Wind in Speed upon the Plain,  
Flew o'er the Fields, nor hurt the bearded Grain:  
She swept the Seas; and, as she skim'd along,  
Her flying Foot unbath'd in Billows hung<sup>m</sup>.*

*Human Nature* is seldom content with Things as they are, but is apt to magnify what it admires to the Height of Wonder, and sink what it despises or hates to the lowest Degree of Contempt. Things great, new, and admirable, extremely please the *Mind* of Man; but Trifles drest up in gaudy Ornaments, and a counterfeited Sublime, give the utmost Aversion to a Man of clear Reason and elegant Taste. Therefore Temper and Judgment are to be used in both Branches of this Trope, in *Excess* and *Defect*, that we neither fly too high nor sink too low, that we neither misapply nor carry too far our Wonder nor our Contempt. For to admire worthless Things, and despise Excellencies, is a sure Sign of Weakness and Stupidity; and, in the latter Case, of Ill-nature and Malice besides. There are various Ways of expressing an *Hyperbole*: I shall name three, which seem to be the Chief.

1. In plain and direct Terms, which far exceed the Strictness of Truth.

*The Giant's lofty Head o'ertops the Clouds<sup>n</sup>.*

<sup>m</sup> Dryd. Virg. *Æn.* vii. in *fine*.

<sup>n</sup> Virg. *Æn.* iii. 620.



## 2. By Similitude, or Comparison :

*It seems as if the Cyclades again  
Were rooted up and jostled in the Main;  
Or floating Mountains floating Mountains meet;  
Such is the first Encounter of the Fleet°.*

3. By a strong Metaphor : As the Poet in the Place above-mentioned, instead of saying that *Camilla* ran very swiftly, heightens the Expression, and makes her fly. Two or three of these Tropes added together raise our Wonder and Pleasure, by carrying up the Discourse to the utmost Point of Sublimity. *Pindar*, speaking of *Hercules* invading the Inhabitants of *Cos*, says, that *Hero's* Attack upon them was not like Winds, or Seas, or Fire, but like a Thunder-bolt ; as if the Fury of those was less, of this only equal. There are the same Steps and Degrees of sinking what is to be rendered contemptible and ridiculous, as of raising what should appear great and wonderful. 'Tis a bold Trope, and must be used with Caution and Judgment. In comical Characters and Pieces of Humour and Drollery, more Liberty is allowed than in serious and grave Subjects. Not only *Plautus* in the Character of *Euclio* ¶, but *Horace* in the Description of his *Miser* §, carries it to a Degree of Extravagance.

§ 6. Irony is a Trope whereby a Man speaks contrary to his Thoughts, that he may speak with more Force and Advantage ; as when a notorious Villain is scornfully complimented with the Titles of a very honest and excellent Person, the Character of the Person ironically commended, the Air of Contempt that appears in the Speaker or Writer, and the Exorbitance of the Commendations, sufficiently discover the Dissimulation. *Milton* represents *God Almighty* addressing his blessed Son upon the Revolt of *Lucifer*, and laughing to scorn the Attempts of those most ungrateful and infatuated Rebels, in a very majestic Irony.

*Son ! Thou in whom my Glory I behold  
In full Resplendence, Heir of all my Might,*

° Dryd. Virg. Æn. viii. 691, 692.  
¶ In Aulularia. § Sat. ii. 3.

Nearly it now concerns Us to be sure  
Of our Omnipotence<sup>¶</sup>!

And *Dryden* finely ridicules the *Egyptian* Worship, in a laughing ironical Commendation of their Leek and Onion Gods.

*Th' Egyptian Rites the Jebusites embrac'd;  
Where Gods were recommended by their Taste.  
Such savory Deities must needs be good,  
As serv'd at once for Worship, and for Food.*

ABSALOM and ACHITOPHEL.

This Way of Expression has great Force in correcting Vice and Hypocrisy, and *dashing* Vanity and Impudence out of Countenance. To dress up a scandalous Wretch in all the Virtues and amiable Qualities that are directly contrary to the vicious Dispositions that have rendered him infamous, only makes him ridiculous in these Mock-ornaments, and more effectually exposes him for a public Mark of Derision. A lively and agreeable Kind of this *Trope* is *ironical Exhortations*: By this, when a Man has largely reckoned up the Inconveniences and Mischiefs that attend any Practice or Way of Living, he concludes with feigned Encouragement and Advice to act after that Manner, pursue that very Course of Life.

So when *Horace*<sup>†</sup> has beautifully described the Tumults, Noise, and Dangers of *Rome*, he closes his Description with this drolling Application,

*Go now, and study tuneful Verse at Rome!*

When a dying or dead Person is insulted with Scoffs and *ironical* Tartness, it is usually called a *Sarcasm*, which proceeds from Heat of Blood, Eagerness of Resentment, and that Arrogance and Pride which possesses the Heart of Man upon Victory and Success. Thus *Pyrrhus* the Son of *Achilles*, when *Priam* reproached him with Cruelty, and put him in Mind of his Father's contrary Behaviour, insults him with the following *Sarcasm*:

*Thou then be first, replies the Chief, to go  
With these sad Tidings to his Ghost below:*

¶ *Parad. Lost, Lib. v. ver. 719, &c.*

† *Ep. ii. 2. 67.*

*Begone,—acquaint him with my Crimes in Troy,  
And tell my Sire of his degenerate Boy.*

PITT'S VIRGIL.

Custom has prevailed that any keen Saying, which has the true Point of *Satire*, and cuts deep, is called a *Sarcasm*.

§ 7. *Catachresis*, or Abuse, is a bold *Trope*, which borrows the Name of one Thing to express another; which either has no proper Name of its own, or, if it has, the borrowed Name is more surprising and acceptable by its Boldness and Novelty. Milton's Description of *Raphael's* Descent from the *Empyrean Heaven* to *Paradise*, affords us a beautiful Example of this *Trope*.

— Down thither prone in Flight  
He speeds, and thro' the vast *Ethereal Sky*  
Sails between *Worlds and Worlds*—<sup>s</sup>.

The first Way of using this *Trope* may be illustrated by this Instance. A *Parricide* is strictly and properly a Murderer of his Father; but there is no appropriate and authorized Name in *English* for a Murderer of his Mother, Brother, Sister, &c. therefore we call all those bloody unnatural Wretches by the Name of *Parricides*: And tho' at first there be a seeming Impropriety in the Word so applied; yet, upon a little Consideration, we find that the Sense runs clear, and the Connexion is just and obvious. It is no *Trespass* against Reason and Propriety of Language to give the same odious Name to Monsters who are involved in the same enormous Guilt.

By this short Account it is plain, that there is a general Analogy or Relation between all *Tropes*, and that in all of them a Man uses a foreign or strange Word instead of a proper one; and therefore says one Thing, and means something different. When he says one Thing, and means another almost the same, it is a *Synecdoche* or *Comprehension*: When he says one Thing, and means another mutually depending, it is a *Metonymy*: When he says one Thing, and means another opposite, or contrary, it is an *Irony*: When he says one Thing, and means another like to it, it is a *Metaphor*: A *Metaphor* continued and often repeated becomes an *Allegory*: A *Metaphor* carried to a great Degree of Boldness is an *Hyperbole*; and when at first Sound it seems a little harsh and shocking, and may be imagined to carry some Impropriety in it, it is a *Catachresis*.

<sup>s</sup> *Parad. Lost*, Lib. v. ver. 266, &c.



## C H A P. III.

*Giving an Account of the Nature, Necessity, and Use of  
FIGURES in general.*

§ 1. **A** Figure is a Manner of Speaking different from the ordinary and plain Way, and more emphatical; expressing a Passion, or containing a Beauty.

The best and most lively Figures do both. The Impressions of Wonder, Love, Hatred, Fear, Hope, &c. made upon the Soul of Man, are characterized and communicated by *Figures*, which are the *Language* of the *Passions*.

The Soul has such a mighty Command over that curious Organ the human Body, that it can make all the Impressions upon it (while it is in Health and Harmony) whereby all the different *Affections* and *Passions* are expressed. It can by its sovereign Pleasure so move and alter the Blood and Spirits, so contract or relax the Nerves, that in Sorrow, a Deadness and Heaviness shall make the Countenance sour; in Anger, a brutal Fierceness shall enflame the Eyes, and ruffle the Looks into Deformity; in Joy and Chearfulness, a sprightly Gaiety shall smile in the Eye, and enliven every Feature. The Soul likewise tunes the *Organs* of Speech, and sets them to that *Key* which will most effectually express her present Sentiments; so that in Joy the Voice shall be tender, flowing, and rapturous; in Anger, shrill, eager, and full of Breaks; in Fear, low, confused, and stammering.

§ 2. The Necessity of *Figures* may appear from the following Reasons.

1. Without *Figures* you cannot describe a Man in a *Passion*; because a Man in a cool and sedate Temper is quite another Thing from himself under a Commotion and vehement Disturbance. His Eyes, his Motions, and Expressions, are intirely different; and why should not the *Description* of him in such contrary Postures be so? Nay, the several *Passions* must be as carefully distinguished, as a State of Indolence and Tranquillity from any one *Passion*. For Instance, the same *Hector* taking leave of his Lady and only Son, and afterwards pursuing the *Greeks* with Fire and Sword to their Ships, must be painted with very different Colours. There he must lay aside all the Fierceness and Terror of the *Warrior*, and appear with all the Condescension and Goodness of a tender *Husband* and indul-

gent *Father*. Here he must resume all his military Ardour; a noble Rage must sparkle in his Face, and his very Smiles must be terrible.

2. If *Writers* and *Speakers* desire to affect their *Readers* and *Hearers*, they must not only appear to be concerned, but must really be so.

When a Man is vehemently moved with the *Passion* which he would inspire other People with, he speaks with Spirit and Energy; and will naturally break out into strong *Figures*, and all the suitable and moving Expressions of an undissembled Eloquence. Unlearned People, in Grief, Anger, Joy, &c. utter their *Passion* with more Vehemence and Fluency than the most Learned, who are not heartily interested in the Matter, nor thoroughly warmed with the *Passion* which they describe. What the Speaker is, for the most Part, the Audience will be: If he be zealously concerned, they will be attentive; if he be indifferent, they will be perfectly careless and cold. Fire kindles Fire; Life and Heat in the Speaker enliven and inspirit the Hearer. As we see by common Experience, that one very gay and pleasant Person propagates his chearful Humour wherever he comes, and gives Vivacity to a whole Company; so, on the contrary, a sour and sullen Wretch damps the Liveliness of all about him, and infects them with his own melancholy and gloomy Temper.

3. *Figures* are highly serviceable to clear difficult Truths; to make a Style pleasant and pathetic; and to awaken and fix Attention.

§. 3. I shall now only mention some of the Directions which are given by our great *Masters* for the prudent and proper Use of *Figures*.

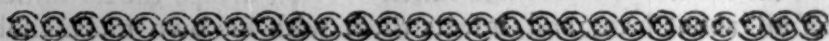
1. Let your Discourse always be founded upon Nature and Sense, supported with strong Reason and Proof; and then add the Ornaments and Heightening of *Figures*. A Man of clear Understanding will despise the Flourish of *Figures*, without Sense; and Pomp of Words, that wants Truth and Substance of Things. The regular Way is, to inform the *Judgment*, and then to raise the *Passions*. When your *Hearer* is satisfied with your Argument, he is then at leisure to indulge his *Passions*; and your Eloquence and pathetic Address will scarce fail to have Power and Prevalence over him.

2. Be sparing in the Use of *Figures*. A *Passion* described in a Multitude of Words, and carried on to a disproportionate Length, fails of the End proposed, and tires instead of pleasing. Contract your Force into a moderate Compass, and be

nervous

nervous rather than copious : But if at any time there be Occasion for you to indulge a Copiousness of Style, beware it does not run into Looseness and Luxuriance.

3. *Figures* must not be over-adorned, nor affectedly laboured, and ranged into nice and scrupulous Periods. By Affectation and Shew of Art, the *Orator* betrays and exposes himself ; and it is apparent, that he is rather ambitious to set off his Parts and Wit, than to express his sincere Concern and *Passion*. His *Hearer* will despise him as a Trifler, and hate his Hypocrisy, who attempts to delude him with false Reasoning, and persuade him to the Belief of what he himself does not believe. Therefore he will stand upon his Guard against a Man, whom he suspects to have Designs upon him, and who proposes to triumph over his Weakness. Sprightliness of Thought and Sublimity of Sense most naturally produce vigorous and transporting *Figures* ; and most beautifully conceal the Art which must be used in cloathing them in suitable Expressions. The Thought is so bright, and the Turn of the Period so easy, that the *Hearer* is not aware of their *Contrivance*, and therefore is more effectually influenced by their *Force*.



#### C H A P. IV.

*Of the chief and most moving FIGURES of Speech.*

§ 1. **E**Xclamation is a Figure that expresses the Breaking out and Vehemence of any Passion.

*O unexpected Stroke, worse than of Death !  
Must I thus leave thee, Paradise ? Thus leave  
Thee, native Soil ; these happy Walks and Shades,  
Fit Haunt of Gods !*

Some *Figures* are the proper Language of some particular *Passions* ; but this expresses them all. It is the Voice of Nature when she is in Concern and Transport. The *Passion* of *Andromache*, upon the News of her Son's being sentenced to be thrown from a Precipice and dash'd in Pieces, and that of

\* Milton's *Par. Lost*, Lib. xi. ver. 268, &c.



*Hecuba* upon the View of his mangled Body, are as masterly Touches as any in *Euripides*<sup>a</sup>: On that Occasion the *tragic Muse* put on her Robe of deepest Mourning, and deplored the untimely and cruel Fate of the *Royal Innocent* in the tenderest and most melting Strains of Sorrow.

§ 2. Doubt expresses the Debate of the Mind with itself upon a pressing Difficulty. A Man in a severe Strain and Perplexity first takes up one Resolution, and then lays it aside; after thinks another Method more convenient, and then changes again. He is tossed to and fro with strong Tides of *Passion*; and at last, after terrible Struggles, scarce fixes upon a final Determination. Thus *Dido* after the Departure of her *Lover*.

*What shall I do? What Succour can I find?  
Become a Suppliant to Hiarbas' Pride?  
And take my Turn to court, and be deny'd?  
Shall I with this ungrateful Trojan go?  
For sake an Empire, and attend a Foe?  
Then shall I seek alone the churlish Crew;  
Or with my Fleet their flying Sails pursue?  
Rather with Steel thy guilty Breast invade,  
And take the Fortune thou thyself hast made*<sup>b</sup>.

This Figure keeps us in eager Attention, and moves all our Tendernefs and Compassion for the unhappy Sufferer.

§ 3. Correction is a Figure, whereby a Man earnestly retracts and recalls what he had said or resolved.

————— First and last  
*On me, me only, as the Source and Spring  
Of all Corruption, all the Blame lights due:  
So might the Wrath! Fond Wish! could'st thou support  
That Burthen, heavier than the Earth to bear;  
Than all the World much heavier*<sup>c</sup>?

When what an Author hath said appears too much, he abates by correcting himself, and using some lessening Ex-

<sup>a</sup> Troades, 735, &c. 1167, &c.

<sup>b</sup> Dryd. Virg. Æn. iv.

<sup>c</sup> Adam in Milt. Par. Lost, x. 831, &c.

pression: "What is it then can give Men the Heart and  
 " Courage,—but I recall that Word, because it is not true  
 " Courage, but Fool-hardiness,—to outbrave the Judgments  
 " of God<sup>d</sup>?" When what has been said appears too little,  
 he strengthens the Expression, and enlarges the Thought:  
 " This was a great Trouble to me, but *that* much more,  
 " that before my Face they thus entertained, caressed, and  
 " kissed my Enemy: My Enemy, did I say? Nay, the Enemy  
 " of the Laws, the Courts of Justice, of Peace, his Country,  
 " and all good Men<sup>e</sup>." An *Author* thus correcting and check-  
 ing himself prevents Cavils and Objections; and by the unex-  
 pected Quickness of the Recollection and Turn pleasingly sur-  
 prises the *Reader*, and all of a sudden fires him with his own  
*Passion*.

§ 4. Suppression is a Figure whereby a Person in Rage, or  
 other Disturbance in Mind, speaks not out all he means, but sud-  
 denly breaks off his Discourse.

The Gentleman in *Terence*, extremely incensed against his  
 Adversary, only accosts him with this abrupt Saying, *Thou of*  
*all* —: The Excess of his Indignation and Rage choaked  
 the Passage of his Voice, and would not suffer him to utter the  
 rest: But in these Cases, though the Discourse is not complete,  
 the Meaning is readily understood; and the Evidence of the  
 Thought easily supplies the Defect of Words.

*Suppression* sometimes proceeds from Modesty, and Fear of  
 uttering any Word of ill and offensive Sound.

§. 5. Omission is when an Author pretends that he conceals  
 and omits what he declares: "I do not mention my Adver-  
 " sary's scandalous Gluttony and Drunkenness; I take no No-  
 " tice of his brutal Lusts; I say not a Syllable of his Trea-  
 " chery, Malice, and Cruelty." In eager *Passion* and Con-  
 tests, Variety of Arguments crowd into a Man's Thoughts;  
 but he is so moved and disturbed that he cannot regularly  
 enlarge upon them. Besides, he has some Fear, that, if he  
 should say all his Indignation would dictate, he might trespass  
 upon the Patience of his *Hearers*; therefore he only gives  
 shorter Hints, and pretends that Time and Reverence for  
 them will not allow him to be more copious and express.  
 This Figure is serviceable to an *Orator* in proposing his weaker  
 Arguments, which yet he knows lie more level to the Capa-  
 cities of some Part of his *Audience*; which he desires to have

<sup>d</sup> Tillotson.

<sup>e</sup> Cicero.

an Interest in. Therefore he does not quite omit them, because they may make Impressions on those People to his Advantage: And yet he mentions them with an Air of Modesty and Caution; lest he should disgust another Part of his Audience, to whom they do not appear of equal Force and Conviction.

§ 6. Address or Apostrophe is, when in a vehement Commotion a Man turns himself on all Sides, and applies to the Living and Dead, to Angels and Men, to Rocks, Groves, and Rivers:

O Woods, O Fountains, Hillocks, Dales, and Bowers,  
With other Echo late I taught your Shades  
To answer, and resound far other Song<sup>f</sup>.

When the Passion is violent, it must break out and discharge itself. By this Figure the Person moved desires to interest universal Nature in his Cause; and appeals to all the Creation for the Justness of his Transport. Adam's Morning Hymn in Milton<sup>g</sup> is a Chain and Continuation of the most beautiful and charming Apostrophes.

When the Poets address a Muse or some divine Power to assist and direct them, this Kind of Apostrophe or Poetical Prayer is called Invocation; by which they gain Esteem both to their Persons and Poems: They are looked upon as favoured, and their Poems as inspired, by Heaven. In the Progress of their Poems, they often repeat these pious Addresses; especially when a Difficulty arises that surmounts human Power; or a Secret is to be revealed that could not be found out by human Sagacity.

A Species of this Figure I take Communication to be; when the Speaker applies to the Judges and Hearers, and entreats their Opinion upon the Question in Debate. By this a Man declares his hearty and unfeigned Concern for the Cause, and pays Deference and Honour to those he addresses. They are pleased with his Modesty and Submission, and so inclined to hear and judge with Favour. There is a Sort of Communication something different from this, when a Person excuses his Conduct, gives Reasons for it, and appeals to those about him, whether they are not satisfactory:

Let envious Jealousy, and canker'd Spite,  
Produce my Actions to severest Light,  
And tax my open Day, or secret Night.

}

<sup>f</sup> Adam in Milt. Par. Lost, x. ver. 860, &c.

<sup>g</sup> Par. Lost, v. ver. 153, &c.



Did e'er my Tongue speak my unguarded Heart  
 The least inclin'd to play the Wanton's Part?  
 Did e'er my Eye one inward Thought reveal,  
 Which Angels might not hear, and Virgins tell?  
 And hast thou in my Conduct, Henry, known  
 One Fault but that which I must ever own,  
 That I, of all Mankind, have lov'd but thee alone?

PRIOR.

§ 7. Suspension begins and carries on a Period or Discourse in such a manner as pleases the Reader all along; and keeps him in Expectation of some considerable thing in the Conclusion. With what infinite Sweetness does Eve carry on, with what grateful Surprize close up, that rapturous Speech to Adam?

Sweet is the Breath of Morn, her Rising sweet,  
 With Charm of earliest Birds; pleasant the Sun,  
 When first on this delightful Land he spreads  
 His orient Beams on Herb, Tree, Fruit, and Flower,  
 Glist'ring with Dew: fragrant the fertile Earth  
 After soft Showers: and sweet the Coming on  
 Of grateful Evening mild: then, silent Night,  
 With this her solemn Bird, and this fair Moon,  
 And these the Gems of Heaven, her starry Train.  
 But neither Breath of Morn, when she ascends  
 With Charm of earliest Birds, nor rising Sun  
 In this delightful Land, nor Herb, Fruit, Flower,  
 Glist'ring with Dew, nor Fragrance after Showers,  
 Nor grateful Evening mild, nor silent Night  
 With this her solemn Bird, nor Walk by Moon,  
 Nor glittering Starlight—without thee is sweet<sup>b</sup>.

This beautiful Figure makes People attentive; and when it is perfect, as here, amply rewards the closest Attention. Great Care must be taken that the Expectation which is raised be not disappointed: For nothing is more vain and contemptible than to promise much and perform little; to usher in an errant Trifle with the Formality of Preface and solemn Preparation.

§ 8. Interrogation is, when the Writer or Orator raises Questions and returns Answers; not as if he was in a Speech or continued Discourse, but in Dialogue or Conference with his Reader, Auditor, or Adversary.

<sup>b</sup> Milt. Par. Lost. iv. ver. 641, &c.

“ Tell me, will you go about and ask one another, *What News?* What can be more astonishing News than this, that the *Man of Macedon* makes War upon the *Athenians*, and disposes the Affairs of *Greece*? Is *Philip dead*? No; but he's *sick*. What signifies it to you whether he be dead or alive! For if any thing happen to this *Philip*, you'll immediately raise up another<sup>1</sup>.” All this delivered without *Interrogation* had been faint and ineffectual; but the Suddenness and Fervor of Question and Answer imitates the Transport of *Passion*; makes the Discourse to sound with Probability, and to be heard with Attention. What is said after such a warm and eager Manner does not seem the Effect of Study and Pre-meditation, but the natural Result and Effusion of a Man's unfeigned Concern. The *Orator* conceals his Art and Design, and so gains the Esteem of the *Audience* for his Sincerity and Heartiness; they lie open to him, and are carried along with the Torrent of his *Passion*, and resistless Eloquence. Scarce any *Passion* can be named but may be put into the Form of *Interrogation*, and may appear with Beauty and Advantage in it.

*Expostulation* is nearly related to this vigorous and pressing Figure: Whereby the injured Person urges the Offender with all the proper Questions he thinks can be proposed, and pleads with him from all the Topics of Reason; that he may convince him of his Injustice, and make him ashamed of his Folly and Ingratitude; that he may beat him off his Excuses and Pleas of Abatement; that he may reduce him to an ingenuous Promise and steady Resolution for the future to observe his Duty:

“ For what have you left unattempted, what have you esteemed sacred these late Days? What Name shall I bestow on this Assembly? Shall I call you Soldiers? who have besieged your General and Emperor's Son with Trenches and Arms? Citizens? who so contemptuously insult the Authority of the Senate<sup>k</sup>?”

§ 9. *Prevention* is, when an Author starts an Objection, which he foresees may be made against any thing he affirms; desires, or advises to; and gives an Answer to it:

<sup>1</sup> Demosthenes, quoted by Longinus.

<sup>k</sup> Germanicus, in his noble Speech to his mutinous Soldiers, Tacit Annal. i. 27, &c. See also Scipio's noble Speech to his Mutineers at Sucro, Liv. Vol. iii. lib. 28. p. 360. Edit. Hearne.

*What then remains? Are we depriv'd of Will?  
Must we not ask for fear of asking ill?  
Receive my Counsel, and securely move;  
Intrust thy Fortune to the Powers above.  
Leave God to manage for thee, and to grant,  
What his unerring Wisdom sees thee want<sup>1</sup>.*

This generally gets the *Author* the Reputation of Foresight and Care; of Diligence, and a generous Assurance of the Reason and Justice of his Cause. When he puts the Objections against himself in their full Force, it is plain that he does not fear the clearest Light, nor decline the strictest Examination. By it likewise some Advantage is gained over an Adversary: He is forestalled and prevented in his Exceptions; and either silenced, or obliged to a Repetition; which is not so grateful as the Mention of a Thing fresh and untouched.

To this *Figure* may be referred *Premunition*, whereby the Speaker, especially in the Entrance and Beginning of his Discourse, cautiously guards himself against Prejudice and Misapprehension: That he may neither lessen his Interest with his Friends; nor enflame the Malice, and increase the Power, of those who watch to do him Mischief.

§ 10. Concession freely allows something that yet might bear Dispute, to obtain something that a Man would have granted to him, and which he thinks cannot fairly be denied.

This *Figure* is sometimes favourable in the Beginning, but severe and cutting in the Close; as *Tully* upon the *Greeks*—  
“ I allow the *Greeks* Learning, and Skill in many Sciences;  
“ Sharpness of Wit, and Fluency of Tongue; and if you  
“ praise them for any other Excellencies, I shall not much  
“ contradict you: But *that Nation* was never eminent for  
“ Tenderness of Conscience, and regard to Faith and Truth.”  
Sometimes the first Parts are fretting and severe, but the Conclusion healing—“ I am, Sir, I own, a Pimp, the common  
“ Bane of Youth, a perjured Villain, a very Pest; but I ne-  
“ ver did *you* an Injury.” The Shew of Candour and Veracity a Man makes by this *Figure*, in frankly granting so much, removes from him the Suspicion of Partiality, and gives him more Credit and Authority in what he denies.

<sup>1</sup> Dryd. Juv. Sat. x. ver. 346, &c.

▪ Sannio to Æschinus, in Terence Adelphi, ii. 1. 34, 35,



*Another Sort of Concession is, when, fearing we cannot obtain all we desire, we give up one Part to carry the rest. When Dido despairs of prevailing with Æneas to settle with her at Carthage, she only intreats he would stay a little longer, to allow her some Time to assuage her Grief, and prepare to bear his Departure :*

*Tell my perfidious Lover, I implore  
The Name of Wedlock he disclaims, no more :  
No more his purpos'd Voyage I detain  
From beauteous Latium, and his destin'd Reign.  
For some small Interval of Time I move,  
Some short, short Season to subdue my Love,  
Till, reconcil'd to this unhappy State,  
I grow at last familiar with my Fate :  
This Favour if he grant, my Death shall please  
His cruel Soul, and set us both at Ease<sup>n</sup>.*

'Tis by this *Figure* that oppressed People in the Extremity of their Indignation provoke their Enemies to do them all the Mischief they can, and proceed still to farther Degrees of Barbarity ; that such lively Representations of their Injustice and Cruelty may strike them with Horror and Shame, and dispose them to relent. The Complaints and Upbraidings of jarring Friends and Lovers are most emphatically expressed in this *Figure* ; the Design of which is to give the guilty Person a deep Sense of his Unkindness, and to kindle all the old Passion and Tendernefs :

*Proceed, inhuman Parent, in thy Scorn,  
Root out my Trees, with Blights destroy my Corn ;  
My Vineyards ruin, and my Sheepfolds burn :  
Let loose thy Rage, let all thy Spite be shown,  
Since thus thy Hate pursues the Praises of thy Son<sup>o</sup>.* }

To this *Figure* may be referred that eloquent *Insinuation*, whereby the *Orator*, after he has used all his Arguments to persuade his Hearers, as it were once more sets them at Liberty, and leaves them to their own Election ; it being the Nature of Man to stick more stedfastly to what is not violently imposed, but is our own free and deliberate Choice : “ If it seem evil  
“ unto you to serve the Lord, chuse you this Day whom you

<sup>n</sup> Pitt's Virg. Æn. iv.

<sup>o</sup> Dryd. Virg. G. iv. 329, &c.

"will serve?" When the great *Joshua* had, under *God*, in the most astonishing Manner, conquered the People of *Canaan*, and conducted the *Israelites* into their Land, he exhorts them to a steady Adherence to the Worship of the true *God*, who had so visibly appeared for them, and made them so gloriously triumph over their Enemies. In the Conclusion of his Speech, well knowing the Advantage and Merits of his Cause, and that he might safely appeal to their Conscience and Experience for the Truth of what he said, he leaves them to their own Liberty and Choice. As if that brave Man had said, My Friends and Countrymen! if I should enlarge on a Matter so plain, it might seem a Distrust upon both your Understanding and Ingenuity. I leave all to you, not in the least suspecting that you can resist such Arguments as cannot fail to work upon any one, who has either Reason or Gratitude.

§ 11. Repetition is a Figure which gracefully and emphatically repeats either the same Word, or the same Sense in different Words. Care is to be taken that we run not into inlpid Tautologies, nor affect a trifling Sound and Chime of insignificant Words. All Turns and Repetitions are so that do not contribute to the Strength and Lustre of the Discourse, or at least one of them. The Nature and Design of this Figure is to make deep Impressions on those we address: It expresses Anger and Indignation, full Assurance of what we affirm, and vehement Concern for what we have espoused.

The most charming Repetitions are those whereby the principal Words in a Sentence, either the same in Sound or Signification, are repeated with such Advantage and Improvement, as raises a new Thought, or gives a musical Cadence and Harmony to the Period. These in *English* are called fine Turns; and are either upon the Words or the Thought, or both. A dextrous Turn upon Words is pretty, the Turn upon the Thought substantial; but the Consummation and Crown of all is, when both the Sound of the Words is grateful, and their Meaning comprehensive; when both the Reason and the Ear are entertained with a noble Thought vigorously expressed, and beautifully finished: That in Mr. Prior's *Henry* and *Emma* is a very agreeable Turn:

*Are there no Poisons, Racks, and Flames, and Swords,  
That Emma thus must die by Henry's Words?  
Yet what could Swords, or Poisons, Racks, or Flame,  
But mangle and disjoint this brittle Frame?  
More fatal Henry's Words; they murder Emma's Fame.*

P Tillotson on *Joshua* xxiv. 15. Serm. 27. p. 308.

1 Prior's *Poems*, p. 192.

Strong and vehement *Passions* will not admit *Turns* upon Words; nor ought they to have Place in *Heroic Poems*, or in grave Exhortations, and solemn Discourses of *Morality*. To this *Figure*, which has greater Variety and many Branches, may be referred the using many Words of the same Signification to express one important Thing. When a Man is full of his Subject, and eager to communicate his Thoughts with Vigour, he is not satisfied with one Expression, though never so strong, but uses all the significant Variety he can recollect. So *Tully* for *Milo*<sup>1</sup>; "The Assassins were baffled, Force repelled by Force, or rather Boldness overcome by Bravery. If Reason prescribes this to the Learned, and Necessity to Barbarians, Custom to Nations, and Nature itself to brute Beasts, always to beat off all Manner of Violence by all possible Ways from their Body, from their Head, from their Life; you cannot judge this to be a criminal and wicked Action, but at the same time you must judge that all Persons who fall amongst Robbers and Bravoes must either perish by their Weapons or your Sentence." An *Orator*, in the Heat of his Engagement, in the Vehemence of his Indignation, against an insolent and unreasonable Adversary, and his earnest Concern for the Preservation of a dear Friend in Danger, exerts the utmost Power of his Eloquence, redoubles his Strokes, and eagerly pushes on all his Advantages.

§ 12. *Periphrasis or Circumlocution uses more and sometimes less plain Words, to avoid some Inconvenience and ill Effect which would proceed from expressing a Thing in fewer and plainer Words.*

When *Tully*<sup>2</sup> could not deny the Death of *Clodius*, and was defending *Milo* charged with his Murder, he says, *Milo's* Servants, without the Command, Knowledge, or Presence of their Master, did what every Master would expect his Servants should do in the like Case. He avoids the Word killed or stabbed, for fear of offending the People. This Method of treating a Subject gives the Audience a good Opinion of the Prudence and Modesty of the Pleader: One unguarded and distasteful Word has sometimes lost the Speaker the Favour of the Audience before well inclined to him, and ruined a promising Cause.

<sup>1</sup> *Select. Orat. in usum Delph.* Lond. 1706. § 7. p. 316.

<sup>2</sup> *Orat. pro Mil.* § 6. p. 316.



Very often *Circumlocution* is used, not merely out of Prudence or Necessity to conceal a Secret, or cover an Indecency, but for Variety and Ornament, to give Pomp and Dignity to our Expressions, to enrich a Discourse with New Thoughts, and to multiply the Graces of a *Description* :

*The Night's bright Empress in her golden Car,  
Darting full Glories from her lovely Face,  
Kindles fresh Beauties in the Eye of Hesper.*

§ 13. Amplification is, when every chief Expression in a Period adds Strength and Advantage to what went before; and so the Sense all along heightens, till the Period be vigorously and agreeably closed.

" It is pleasant to be virtuous and good, because that is to  
" excel many others : It is pleasant to grow better, because  
" that is to excel ourselves : Nay, it is pleasant even to mortify and subdue our Lusts, because that is Victory : It is  
" pleasant to command our Appetites and Passions, and to  
" keep them in due Order, within the Bounds of Reason and  
" Religion, because this is Empire <sup>w</sup>." When an *Author* thus improves upon us in his Discourse, we are extremely pleased and attentive while he continues it, and perfectly satisfied when he concludes. We are edified and charmed with the Instruction of one whom we find to be complete Master of his Subject. What Reputation must it be to the *Writer*, what Pleasure to the *Reader*, when one says every thing in the best Manner it can be said, and the other is entertained with every thing that can be desired ? But it is the utmost Reproach to an *Author*, and a most intolerable Disappointment to the *Reader*, when the one flags and falters every Step, and so the other is fatigued and mortified with a continual Series of heavy and lifeless Periods. There are various Ways of contriving and forming this *Figure*, which have great Force and Elegance, tho' perhaps they cannot nicely be adapted to every Part of the *Definition*. I shall name three very lively Ways of expressing an *Amplification*.

1. We amplify or raise a Discourse by selecting a Number of the most emphatical and strongest Words of the Language we use, every one of which adds something new to the Sentence; and all joined, heighten it to the utmost Degree of

<sup>w</sup> *Archbishop Tillotson, Sermon 12. p. 138.*

Perfection. That Passage in *Terence* \* is upon this Account universally admired :

*Hæc verba meherculè una falsa lacrymula,  
Quam oculos terendo misere, vix vi expresserit  
Restinguet.*

2. This *Figure* is sometimes expressed by way of Comparison or Apposition.—“ When that great Man *P. Scipio*, though  
“ but a private Person, killed *Tiberius Græchus*, making some  
“ small Innovation and Disturbance in the *State* ; shall we,  
“ who are *Consuls*, bear *Catiline*, who is endeavouring and  
“ plotting to lay the *World* waste with Fire and Sword ? ”

3. A Discourse is very happily and beautifully heightened by way of Argument or rational Inference. *Quintilian* <sup>2</sup> excellently observes, that *Homer* gives us a very exalted *Idea* of *Helen's* sovereign Charms, when he introduces *Priam's* grave Counsellors owning, that it was not to be complained of or resented, that the *Trojans* and *Greeks* had sustained the Calamities of a long and cruel War for *such a Woman* ; and makes the King himself place her by him, call her, Dear Child, and treat her with all possible Tenderness and Respect. Must not every judicious Reader infer that her Beauty must be incomparable, which was admired and praised to such a Degree by Men cool and unpassionate, of mature Wisdom and great Age, who had been deep Sufferers by it ? Must not that Face be superlatively lovely, and those Eyes sparkle with resistless Lustre, that could be viewed with Pleasure and Veneration by that miserable Prince, though they had kindled the Flames of War in his Country, and blasted the Prosperity and all the Hopes of his late flourishing Family.

To this we may refer *Climax* or *Gradation*.—Which is when the Word or Expression which ends the first Member of a Period begins the second, and so on ; so that every Member will make a distinct Sentence, taking its Rise from the next foregoing, till the Argument and Period be beautifully finished. Or, in the Terms of the Schools, It is when the Word or Expression, which was Predicate in the first Member of a Period, is Subject in the second, and so on, till the Argument and Period be brought to a noble Conclusion. This *Figure*, when natural and vigorous, furnishes the Mind with Variety of Ideas, and accustoms it to Attention and

\* Eunuch. I. i. ver. 22. &c.

† Tully against Catiline.

2 Institut. lib. viii. cap. 4. p. 405.

close Thinking. The Art and Contexture of a *Gradation* often appears plain, and lies in too open View; therefore Care must be taken that the *Gradations* we use be unforced, and abound with good Sense; be significant and dextrously turned. I am pleased with that in Dr. *Tillotson*<sup>a</sup>; “After we have practised good Actions a while, they become easy; and when they are easy, we begin to take Pleasure in them; and when they please us, we do them frequently; and by Frequency of Acts a Thing grows into a Habit; and a confirmed Habit is a second Kind of Nature; and so far as any thing is natural, so far it is necessary, and we can hardly do otherwise; nay, we do it many times when we do not think of it.”

§ 14. *Omission of Copulatives, is when the Conjunctions or little Particles that connect Words together are left out, to represent Haste, or Eagerness of Passion.*

When *Dido*, in the Violence of her Rage and Resentment for the abrupt Departure of *Æneas*, charges her People to arm themselves and pursue the Trojan Fleet,

*Haste, haul my Gallies out, pursue the Foe,  
Bring flaming Brands, set sail, impetuous row<sup>b</sup>,*

The Members of the *Period* are loose and unconnected; which most naturally paints the Hurry and Distraction of her Thoughts. The Conjunctions put between the Words would have cramped and fettered the Period, so that it would have moved slow and unwieldy, and have been far from a Representation of the raging Queen's Disturbance of Mind, and Vehemence of *Passion*.

*Sallust*<sup>c</sup> excellently and very naturally represents the Rout and precipitate Flight of the *Moors* in these Words—*Tum spectaculum horribile in campis patentibus: Sequi, fugere, occidi, capi.*

The contrary to the former—*Multitude of Copulatives is when the little Particles are properly put in before every principal Word in the Period.*

*Livy*, giving an Account how the Pleasures and Luxury of *Capua* corrupted and softened the Army of *Annibal*, amongst others has this beautiful Passage—“For Sleep, and Wine, and Feasts, and Strumpets, and Bagnios, and Rest, that

<sup>a</sup> *Serm. x. p. 171.*

<sup>b</sup> *Æn. iv.*

<sup>c</sup> *Bell. Jugurth. p. 106. Edit. Mattaire.*



“ thro’ Custom grow every Day more bewitching, had so  
 “ weakened both their Bodies and their Minds, that the Re-  
 “ putation of their past Victories protected them more than  
 “ their present Strength<sup>d</sup>.” This *Figure*, when aptly and  
 judiciously used, makes a Discourse strong and solemn, fixes an  
 Emphasis upon every Word, and points it out as worthy of  
 Observation.

§ 15. *Opposition is a Figure whereby Things very different or contrary are compar’d and placed near, that they may set off each other.* White placed near Black shines brighter: Innocence compar’d with Guilt appears with double Charms and Loveliness.

The Poets, Historians, and Orators improve their Subject, and much heighten the Pleasure of their Reader, by the beautiful Opposition of the Characters and Descriptions.

*Tacitus*<sup>e</sup> describes the excessive Dalliances and frantic Revels of the Empress *Messalina* with *Silius* a little before their Death, in wonderful Pomp and Gaiety of Expression; that the Reader may be the more surprized and astonished at the Suddenness and terrible Circumstances of her Fall. The Poet<sup>f</sup>, in his fine Description of *Dido’s* Despair the Night before her Death, represents all the Creation enjoying profound Tranquillity and sweet Rest, to render that miserable Queen’s Disquietudes more moving. She was deprived of the common Privilege indulged to the poorest and most despicable Creatures; Sleep fled from her Eyes, and Quiet was banished from her Breast.

In *Virgil’s* second *Georgic* there is a very agreeable Contrast and Opposition in that fine *Comparison* between the Court and Country. The Pomp and Hurry of State, and the Freedom and pure Pleasures of Retirement and Agriculture. Upon a full Enumeration of the several Conveniences and Enjoyments of both Ways of Living, what Advantage and Overbalances does the Poet give to the latter! The very Manner of his Expression, and Turn of his Poetry, are with great Judgment and Dexterity varied, and made suitable to his different Subjects. The Description of the Pride and Stateliness of the Great is drawn to the Life in a pompous Run of Verse, and Variety of very bold Tropes:

<sup>d</sup> Liv. *Hist.* Vol. 3. Edit. Hearne. lib. xxiii. p. 27.

<sup>e</sup> *Annal.* xi. p. 252.

<sup>f</sup> Virg. *Æn.* iv. ver. 522.

—*Ingentem foribus domus alta superbis,  
Mane salutantum totus vomit ædibus undam;  
—Varios inhiant pulchrâ testudine postes,  
Illusasque auro vestes*——<sup>2</sup>.

But you have the Innocence and Plainness, the Sweetness and undisturb'd Quiet of the Country, naturally represented in proper Words, in plain and easy Expression, and in the smoothest and sweetest Numbers:

*At secura quies, & nescia fallere vita,  
Dives opum variarum, at latis otia fundis,  
Speluncæ, vivique lacus; at frigida Tempe,  
Mugitusque boum, mollesque sub arbore somni  
Non absunt*<sup>3</sup>.——

§ 16. Comparison beautifully sets off and illustrates one Thing by resembling and comparing it to another, to which it bears a manifest Relation and Resemblance:

—*She never told her Love,  
But let Concealment, like a Worm i' th' Bud,  
Feed on her Damask Cheek: She pin'd in Thought,  
And sat, like Patience on a Monument,  
Smiling at Grief.* SHAKESPEAR.

The Poet wonderfully praises the Bravery of his Hero, with perfect Serenity and Presence of Mind giving Orders of Battle in the Hurry and Heat of the bloody Action, when he compares him to an Angel riding upon the Wings of the Wind, and directing a Storm where to pour out its Fury:

*So when an Angel, by divine Command,  
With rising Tempests shakes a guilty Land,  
(Such as of late o'er pale Britannia past)  
Calm and serene he drives the furious Blast;  
And, glad th' Almighty's Orders to perform,  
Rides in the Whirlwind, and directs the Storm*<sup>1</sup>.

Comparisons mightily strengthen and beautify a Discourse; for some Time take off the Reader from the principal Subject, and start new and agreeable Images to divert and entertain him, that he may return to it with fresh Pleasure and Eagerness. In Comparisons these Things are to be observed:

<sup>2</sup> Georg. ii. ver. 461, &c.

<sup>3</sup> Ib. ver. 467.

<sup>1</sup> Mr. Addison's Campaign.

1. The chief and essential Parts of the *Comparison* must bear an exact and true Proportion. Some small Disagreement in a less considerable Circumstance will not spoil the Grace, nor take away the Strength, of the *Figure*. Though the greater Agreement and exacter Parallel there is in all Particulars, the more lively the *Figure* is. And therefore, generally speaking, *Comparisons* ought to be short. In running into minute Circumstances, besides the Tedioufness, there is Danger of discovering some unagreeable Disproportion.

2. *Comparisons* need not always be drawn from very noble and lofty Subjects. Those taken from meaner Things are significant and agreeable, if they be set off in noble Words, if they give clear Notions, and paint in strong and fine Colours the Thing we intend to represent by them. In great Subjects, *Comparisons* from lesser Things relieve and refresh the Mind; as when *Shakespear* illustrates the Government of a Kingdom by comparing it with that of Bees:

—So work the Honey Bees;  
Creatures that, by a Rule in Nature, teach  
The Art of Order to a peopled Kingdom.  
They have a King, and Officers of State;  
Where some like Magistrates correct at Home;  
Others, like Merchants, venture Trade Abroad;  
Others, like Soldiers armed in their Stings,  
Make boot upon the Summer's Velvet Buds,  
Which they with merry March bring home  
To the Tent-Royal of their Emperor:  
Who, busy'd in his Majesty, surveys  
The singing Mason building Roofs of Gold,  
The civil Citizens kneading up the Honey,  
The poor mechanic Porters crowding in  
Their heavy Burthens at his narrow Gate,  
The sad-ey'd Justice, with his surly Hum,  
Delivering o'er to Execution pale  
The lazy yawning Drone.

And common Subjects may be heightened and improved by strong and sublime *Comparisons*: As when the same Author compares the Restoration of a lawful King, to the Rising of the Sun after a dark Night;

—Know'st thou not  
That when the searching Eye of Heaven is hid  
Behind the Globe, and lights the lower World;



*Then Thieves and Robbers range abroad unseen;  
 In Murders, and in Outrage bloody here.  
 But when from under this terrestrial Ball,  
 He fires the proud Tops of the Eastern Pines;  
 And darts his Light through every guilty Hole;  
 Then Murders, Treasons, and detested Sins,  
 The Cloak of Night being pluck'd from off their Backs;  
 Stand bare and naked, trembling at themselves.  
 So when this Thief, this Traitor Bolingbroke,  
 Who all this while hath revel'd in the Night,  
 Whilst we were wand'ring with the Antipodes,  
 Shall see us rising in our Throne, the East;  
 His Treasons will sit blushing in his Face,  
 Not able to endure the Sight of Day,  
 But, self-affrighted, tremble at his Sin.*

For more Examples of both Kinds, I refer you to some beautiful Passages marked below<sup>k</sup>.

Those also are very strong and glowing Comparisons, where the noblest Beings of the natural and moral World, where Angels, good or bad, are compared to the Luminaries of Heaven. How sublime is Milton in his Comparison of Lucifer's diminished Splendor, and faded Beauties, to the Sun overclouded or eclipsed!

——His Form had not yet lost  
 All its original Brightness, nor appear'd  
 Less than Archangel ruin'd, and th' Excess  
 Of Glory obscur'd: As when the Sun new risen  
 Looks thro' the horizontal misty Air  
 Shorn of his Beams; or from behind the Moon  
 In dim Eclipse disastrous Twilight sheds  
 On half the Nations, and with Fear of Change  
 Perplexes Monarchs. Darken'd so, yet shone  
 Above them all th' Archangel<sup>l</sup>.

§ 17. Lively Description is such a strong and beautiful Representation of a Thing, as gives the Reader a distinct View and satisfactory Notion of it.

How animated and beautiful is Shakespear's Description of the Queen of the Fairies, and her Power of causing Dreams?

<sup>k</sup> Hom. *Il.* Lib. iv. 130, 131. Milton's *Par. Lost*, Lib. i, 768, &c. Virg. *Geor.* Lib. ii. 379, &c.

<sup>l</sup> *Par. Lost*, Lib. i, 591, &c.

*She is the Fancy's Midwife, and she comes,  
 In Size no bigger than an Agate-stone;  
 On the fore Finger of an Alderman;  
 Drawn with a Team of little Atomies,  
 Athwart Men's Noses as they lie asleep.  
 Her Waggon Spokes made of long Spinner's Legs;  
 The Cover, of the Wings of Grasshoppers;  
 The Traces, of the smallest Spider's Web;  
 The Collars, of the Moonshine's watry Beams;  
 Her Whip, of Cricket's-bone; the Lash, of Film;  
 Her Waggon, a small grey-coated Gnat,  
 Not half so big as a round little Worm,  
 Prick'd from the lazy Finger of a Maid;  
 Her Chariot is an empty Hazle-nut,  
 Made by the Joiner Squirrel, or old Grub,  
 Time out of Mind, the Fairies Coachmakers.  
 And in this State she gallops, Night by Night,  
 Through Lovers Brains, and then they dream of Love;  
 On Courtiers Knees, that dream on Court'sies strait;  
 O'er Lawyers Fingers, who strait dream on Fees;  
 O'er Ladies Lips, who strait on Kisses dream;  
 Which oft the angry Mab with Blisters plagues,  
 Because their Breaths with Sweetmeats tainted are.  
 Sometimes she gallops o'er a Courtier's Nose,  
 And then dreams he of smelling out a Suit:  
 And sometimes comes she with a Tythe-pig's Tail,  
 Tickling the Parson as he lies asleep;  
 Then dreams he of another Benefice.  
 Sometimes she driveth o'er a Soldier's Neck,  
 And then he dreams of cutting foreign Throats,  
 Of Breaches, Ambuscadoes, Spanish Blades,  
 Of Healths five Fathom deep; and then anon  
 Drums in his Ears, at which he starts and wakes;  
 And, being thus frightened, swears a Prayer or two,  
 And sleeps again.*

In *Descriptions* a judicious *Author* will omit low and vulgar Circumstances, and chiefly bestow his Pains to complete and beautify all the essential and masterly Strokes. It is the Manner of little Versifiers to take every Hint that presents itself, and run out into long *Common-places*. A Writer that would live and please, will cut off Superfluities, and reject the most pleasing Thoughts and florid Lines, which would come in abruptly, and quite foreign to his Subject. Many Things must be left

to the Imagination of the *Reader*, and *seasonable Silence* has its *Emphasis*. *Virgil*<sup>m</sup> tells his *Reader*, that *Eurydice* was killed by a Serpent lurking in a Bank, but says nothing more of that venomous Creature. A Poet after would probably have spent as many Lines in a horrid *Description* of it, as compose that admirable *Poem*: But that *divine Poet* knew there was no room for such a Liberty here, his Design in this short and exquisite Piece being only to give a moving Pattern of true conjugal Affection, and to shew the rapturous Force which good *Musick* and *Poetry* have over the most fierce and savage Tempers.

But he describes the two Serpents which destroyed *Laocoon*<sup>n</sup> and his Sons in such particular Circumstances, and paints the devouring Monsters in such strong and frightful Colours, that they amaze and chill the *Reader*. Here his only Business was to raise Terror, and give his *Reader* a due Notion of the Displeasure of the *Gods* against *Troy*, which was so fixt and implacable, that they thus signally cut off an innocent Man and his Family, for giving his Countrymen Advice, which tended to the opposing their severe Decree, and the Preservation of that devoted *City*. The *Description* of a *Person* is called a *Character*, in drawing which the true Proof of Art and Judgment is to hit a beautiful Likeness; and with a delicate Touch to give those Features and Colours which are peculiar to the *Person*, and distinguish him from the rest of Mankind. In every good and lively *Description* a Man must come to an Enumeration of the chief Particulars; for Generals are often obscure and faint; a judicious Account of Particulars sets every thing in full View, and makes a strong and lasting Impression upon the *Reader*.

§ 18. *Vision or Image is a Representation of Things distant and unseen, in order to raise Wonder, Terror, or Compassion, made with so much Life and Emphasis, that as the Poet has a full View of the whole Scene he describes, so he makes the Reader see it in the same strong Light:*

Or mad Orestes, when his Mother's Ghost  
Full in his Face infernal Torches tost;  
And shook her snaky Locks: He shuns the Sight,  
Flies o'er the Stage surpris'd with mortal Fright;  
The Furies guard the Door, and intercept his Flight<sup>o</sup>.

<sup>m</sup> Georg. Lib. iv. 457, &c.

<sup>n</sup> Æn. Lib. ii. 203, &c.

<sup>o</sup> Dryd. Virg. Æn. Lib. iv. 683, &c.



This noble *Image* raises Consternation and Terror : An Instance of tender *Image* to move Pity we have in those soft and sweet Lines of *Spenser* <sup>p</sup>,

—Not one Word more she said ;  
But breaking off the End for want of Breath,  
And sliding soft, as down to sleep her laid,  
And ended all her Woe in quiet Death.

The *Poet*, or *Orator*, upon these Occasions is so fully possessed of, and vehemently intent upon his Subject, that he is really transported with those *Passions* which he would inspire his *Readers* or *Hearers* with ; and by that Strength and noble *Enthusiasm* of *Imagination*, he is happily qualified to captivate their *Affections*. A commanding Genius can impress his own *Images* upon those he addresses ; can move the inmost Springs of their Soul ; and with a pleasing Power triumph over the whole Man.

§ 19. *Prosopopœia*, personifying, or raising Qualities or Things inanimate into Persons, has two Parts.

1. When good and bad Qualities, Accidents, and Things inanimate, are introduced in Discourse, and described as living and rational Beings. *Virtue* and *Pleasure* address young *Hercules* as two bright Ladies of opposite Parties : The one would fain induce him to decline the Toils of War, and indulge himself in Ease and Luxury : The other earnestly exhorts him to shake off Sloth ; and pursue true Fame and solid Glory. Take the Description of them from an elegant Poem which *Mr. Spence* has given us in his *Polymetis*.

The first, in native Dignity surpass'd ;  
Artless and unadorn'd, she pleas'd the more :  
Health, o'er her Looks a genuine Lustre cast ;  
A Vest, more white than new-fall'n Snow, she wore.  
August she trod, yet modest was her Air ;  
Serene her Eye, yet darting heavenly Fire.  
Still she drew near ; and nearer still more fair,  
More mild appear'd : yet such as might inspire  
Pleasure corrected with an awful Fear ;  
Majestically sweet, and amiably severe.

<sup>p</sup> *Fairy Queen*, ii. 1. 56.

*The other Dame seem'd of a fairer Hue;  
 But bold her Mien; unguarded rov'd her Eye:  
 And her flush'd Cheek confess'd, at nearer View,  
 The borrow'd Blushes of an artful Die.  
 All soft and delicate, with airy Swim  
 Lightly she danc'd along; her Robe betray'd  
 Thro' the clear Texture every tender Limb,  
 Heightning the Charms it only seem'd to shads:  
 And as it flow'd adown, so loose and thin,  
 Her Stature shew'd more tall, more snowy white her Skin.*

And in the same Poem, how animated and striking is the Description of their different Effects and Consequences, by being put into the Mouth of *Virtue* as a Person, and addressed to *Vice* as a Person also!

*Vast Happiness enjoy thy gay Allies!  
 A Youth of Follies, an old Age of Cares:  
 Young, yet enervate; old, yet never wise;  
 Vice wastes their Vigour, and their Mind impairs.  
 Vain, idle, delicate, in thoughtless Ease,  
 Reserving Woes for Age, their Prime they spend;  
 All wretched, hopeless, in the evil Days  
 With Sorrow to the Verge of Life they tend.  
 Griev'd with the present; of the pass'd ashamed;  
 They live, and are despis'd: they die, no more are nam'd.*

*But with the Gods, and godlike Men I dwell:  
 Me, his supreme Delight, th' Almighty Sire  
 Regards well pleas'd: whatever Works excell,  
 All or divine or human, I inspire.  
 Counsel with Strength, and Industry with Art,  
 In Union meet conjoin'd, with me reside:  
 My Dictates arm, instruct, and mend the Heart;  
 The surest Policy, the wisest Guide.  
 With me true Friendship dwells: she deigns to bind  
 Those generous Souls alone, whom I before have join'd.*

*Nor need my Friends the various costly Feast:  
 Hunger to them th' Effects of Art supplies:  
 Labour prepares their weary Limbs to rest;  
 Sweet is their Sleep: light, chearful, strong they rise.  
 Thro' Health, thro' Joy, thro' Pleasure, and Renown,  
 They tread my Paths; and by a soft Descent,  
 At length to Age all gently sinking down,  
 Look back with Transport on a Life well spent:*

*In which, no Hour flew unimprov'd away ;  
In which, some generous Deed distinguish'd every Day.*

*And when, the destin'd Term at length compleat,  
Their Ashes rest in Peace ; eternal Fame  
Sounds wide their Praise : triumphant over Fate,  
In sacred Song for ever lives their Name.*

The Invention and Description of these *imaginary Persons*, if managed with Judgment, raises Admiration, and gives Grace and Grandeur to a Discourse. The *Poets*, who were the *Divines* of ancient Ages, finding that every Part of the World was influenced by a superior intelligent *Power*, and every where observing bright and manifest Marks of Art and Wisdom, feigned a vast Number of *Deities*, to all which they assigned their peculiar Provinces. The *Rivers* had their *Guardian Gods* ; the Fountains their *Nymphs* ; *Flora* presided over the Flowers, *Pomona* over the Fruits, &c. The *Fable* was gaily decked up to amuse and please the People ; but the great *Moral* and Truth, that lay at the Bottom of the *Fiction*, was, that a wise and powerful and bounteous *Providence* over-ruled and preserved the Universe.

Some of the finest *Apostrophes*, and boldest *Metaphors*, are founded upon the *Fiction* of a *Person*.

—Now gentle Gales,  
Fanning their odoriferous Wings, dispense  
Native Perfumes ; and whisper whence they stole  
Those balmy Spoils —<sup>a</sup>.

2. The second Part of this lively *Figure*, is when we give a *Voice* to inanimate Things ; and make *Rocks*, *Woods*, *Rivers*, *Buildings*, &c. to express the *Passions* of rational Creatures.

As when the Walls and Pillars of a *Temple* are brought in trembling at, or inveighing against, the daring Profanation of *Blasphemy* uttered ; of *Sacrilege* or *Debauchery* committed within their hallowed Bounds.

*She foul blasphemous Speeches forth did cast,  
And bitter Curses, horrible to tell ;  
That even the Temple wherein she was plac'd,  
Did quake to hear, and nigh asunder burst<sup>b</sup>.*

<sup>a</sup> Milton's *Par. Lost*. iv. 156, &c.

<sup>b</sup> Spenser's *Fairy Queen*, ver. 11, 28.



Either *feigned Persons* are represented as uttering the *Re-sentments* of Mankind in exprefs *Terms*; or it is supposed they would cry out upon *Occasion*; or it is affirmed in general that they do utter their *Concern* and *Passion*, but the *Words* are not set down. Of the first Kind, which is the most moving and sprightly, is that *Representation* of *Tully*<sup>s</sup>, wherein he introduces *Rome* as a venerable *Matron*, the common Mother of all the *Romans*, in a pathetical Speech expostulating with *Catiline*, who then was engaged in a bloody and unnatural Conspiracy to destroy his native Country, and pressing him to depart and deliver her from her present terrible Apprehensions and Danger. There is an Excess of *Passion*, a Degree of *Enthusiasm*, in this sublime *Figure*; and therefore it is dangerous and ridiculous to use it, but when the Importance and Grandeur of the Subject requires such a noble Vehemence. A Man of Understanding will keep his boldest Flights within the Bounds of common Sense; and guide himself by the Rules of Probability and Decorum in his most adventurous Sallies of Imagination. It is very tender and moving when in *Pastoral* and *mourning Poems*, Rivers, Groves, and Mountains are brought in languishing for the Absence, or lamenting the Loss, of some very valuable Person, that before frequented them and cheered them with his Presence.

*No more the mounting Larks, while Daphne sings,  
Shall listening in mid Air suspend their Wings;  
No more the Nightingales repeat their Lays,  
Or hush'd with Wonder, hearken from the Sprays;  
No more the Streams their Murmurs shall forbear,  
A sweeter Music than their own to hear;  
But tell the Reeds, and tell the vocal Shore,  
Fair Daphne's dead, and Music is no more!*

*Her Fate is whisper'd by the gentle Breeze,  
And told in Sighs to all the trembling Trees;  
The trembling Trees, in every Plain and Wood,  
Her Fate remurmur to the Silver Flood;  
The Silver Flood, so lately calm, appears  
Swell'd with new Passion, and o'erflows with Tears;  
The Winds and Trees and Floods her Death deplore,  
Daphne, our Grief! our Glory now no more!*

POPE.

<sup>s</sup> *Orat. i. in-Catil. p. 86. in usum Del.*

This

This *Figure* animates all Nature; gratifies the Curiosity of Mankind with a constant Series and Succession of Wonders; raises and creates new Worlds and Ranks of rational Creatures, to be Monuments of the *Poet's* Wit, to espouse his *Cause* and speak his *Passion*. To discern how much Force and Sprightliness this *Figure* gives to a Sentence or Expression, we need but first set down that Line,

*Aut conjurato descendens Dacus ab Istro;*

And then after it thus,

*Aut conjuratus descendens Dacus ab Istro;*

And so make a Comparifon. In the *Plain Way*, it is not above the humble Style of *Phædrus*; in the *Figurative*, it rises up to the Loftiness and Majesty of *Virgil*.

§ 20. Change of Time is when Things done and past are described as now doing and present. This Form of Expression places the Thing to be represented in a strong and prevalent Light before us, and makes us *Speēlators* rather than *Hearers*.

*My Mother, with that curst Partaker of her Bed,  
My Royal Father's Head in Pieces cleaves,  
As sturdy Woodmen fell a stately Oak:  
By Treason's Blow the Victor Hero falls,  
To Woman's Rage, and Coward's Guilt a Victim.  
While thus the Lord of Greece expiring lies,  
No Pity touches any Breast but mine.*

Here the *Princess* presents you with a mournful Scene of *Agamemnon's* Murder, and gives you a View of the Horrors of that guilty Night and bloody Supper. She moves every generous Breast to sympathize with her; to boil with Indignation against the treacherous and barbarous Murderers; and bleed with Compassion for the Royal Sufferer.

§ 21. Change of Persons has some Variety.——'Tis most commonly when the *Writer* on a sudden breaks off his Relation, and addresses his Reader.

Georg. ii. 497.  
From the Elect. of Soph.

*Again a fierce Engagement by the Ships arose;  
You'd think that neither Weariness nor Wounds  
Could touch the fearless Warriors —<sup>t</sup>.*

This *Figure*, when we have it in Perfection, takes off the Tediouſness of a long direct Narration; makes the *Reader* attentive, as if he ſaw the Place where the Thing was tranſacted; and raiſes his *Paſſions* as if he himſelf was in the Hurry and Heat of the Action.

'Tis of peculiar Grace and Advantage in the Deſcription of Places: It leads the *Reader* pleaſantly into them; heightens his Imagination; and, to uſe a bold Expreſſion, gives him the Delight of ſafe and eaſy Travelling in a fine Country. Sometimes, for Variety's Sake, to ſmooth a harſh Expreſſion, to pay Reverence to the *Reader*, or to avoid ſuppoſing that any thing may happen which is ſhocking or of dangerous Conſequence, the Author appropriates and applies that to himſelf, which he deſigns for the *Reader's* Warning or Inſtruction, ſo *Virgil* of the miſchievous Serpent in *Calabria*;

*O! let not Sleep my cloſing Eyes invade  
In open Plains or in the ſecret Shade;  
When he renew'd in all the ſpeckled Pride  
Of pompous Youth hath caſt his Slough aſide<sup>u</sup>.*

*Change of Perſons* is common and very natural in eager Conteſts and ſtrong *Paſſions*; when Adverſaries breathe mutual Rage and Scorn; or a deſerted Lover inveighs againſt the Perjuries, and aggravates the Barbarity, of the guilty and treacherous Perſon.

*Turnus* in *Virgil*<sup>w</sup>, enraged at the malicious Harangue of *Drances*, firſt ſmartly replies to him, and then turns his Diſcourſe to King *Latinus* and his Council, then attacks *Drances* again with Variety of ſevere and ſatirical Language.

*Dido*, upon Notice of the Departure of *Aeneas*, diſtracted with Rage and Deſpair, firſt furioſly falls upon him, then, diſdainfully turning from him, ſpeaks of him as an abſent Perſon; after, exclaims againſt the Cruelty of Heaven and Earth; then reproaches and condemns herſelf for her own Credulity and Weakneſs, and again with Scorn and eager Indignation turns her Speech to *Aeneas*;

<sup>t</sup> *Iliad* xv. 696, &c.

<sup>u</sup> Dryd. *Virg. Geor.* iii. 435, 436.

<sup>w</sup> *Æn.* xi. ver. 392, &c.



*False as thou art, and more than false, forsworn;  
 Not sprung from noble Blood, nor Goddess-born;  
 Why should I fawn; what have I worse to fear?  
 Did he once look, or lent a list'ning Ear;  
 Sigh'd when I sobb'd, or shed one kindly Tear?  
 Nor Juno views my Wrongs with equal Eyes;  
 Faithless is Earth, and faithless are the Skies;  
 I sav'd the shipwreck'd Exile on my Shore——  
 With needful Food his hungry Trojans fed:  
 I took the Traitor to my Throne and Bed.  
 Fool that I was!  
 But go; thy Flight no longer I detain:  
 Go, seek thy promis'd Kingdom through the Main\*.*

What a Storm is here, and how inimitably painted !

§ 22. *Transition* is of two Sorts ;

1. *The first* is when a Speech is introduced abruptly, without express Notice given of it. As when Milton<sup>y</sup> gives an Account of our first Ancestors Evening Devotions,

*Both turn'd, and under open Sky ador'd  
 The God that both made Sky, Air, Earth, and Heaven——  
 ——Thou also mad'st the Night,  
 Maker Omnipotent, and thou the Day!*

Had it been introduced in a formal Manner,

*Adam presents their joint Petition thus ;  
 O God ! thou mad'st both Sky, &c.*

it had lost all its Sprightliness and Grace. After the Greek Poet<sup>z</sup> has finished the Narration of *Hector* putting to flight the *Grecians*, and vehemently urging his *Trojans* to pursue their Advantage, and forbear the Spoil of the Field till they had burned the Enemy's Ships, without any Notice he immediately makes the *Hero* utter his own Passion in an impetuous Speech ; wherein he threatens Disgrace and Death to any Man that should disobey his Orders, and neglect this promising Season of a compleat Victory. This Speech that breaks from a Warrior in the Speed of his glorious Success, in the

\* Virg. *Æn.*

<sup>y</sup> Par. Lost, iv. 721.

<sup>z</sup> Hom. *Iliad*, xv. ver. 38, &c.

full Prospect of Revenge upon his Enemies, and the final Deliverance of his Country and Kingdoms after a long and bloody War, comes rapid and resistless like a pointed Shot out of an *Engine*, and strikes the *Reader* with Surprise and Terror.

Leaving out the heavy Formality of, *He said*, and, *He reply'd*, is very graceful in Stories and *Dialogues*, renders the Relation clear and full, and the Repartee quick and lively.

*Horace* is extremely happy in this Sort of *Transition*; as indeed he is in every Delicacy of Turn, and Beauty of Language.

2. The second Sort of *Transition* is when a *Writer* suddenly leaves the Subject he is upon, and passes on to another from which it seems very different at first View; but has a Relation and Connection with it, and serves to illustrate and enlarge it.

*Horace*, in the thirteenth *Ode* of the second Book, gives us a very lively Account of the Danger he was in of being destroyed by the Fall of a Tree, and after makes wise and moral Remarks on the Accident. Then he falls out into an Account of the other World, upon which he was so near entering; and beautifully expatiates upon the Praises of his illustrious Predecessors in *Lyric Poetry*; who were heard with Pleasure and Wonder there, as they used to be in this World. In these Cases the *Poet* does not disappoint his *Reader* of the Instruction and Pleasure he proposes, but multiplies and increases both; nor does he so much take him off from the View of his Subject, as he gives him a delightful Prospect of it every Way, and in the best Light. A Guide cannot be said to mislead the Traveller, who brings him safely and pleasantly to his Journey's End; and only takes him out of the common Road, to shew him a Palace or a Paradise, to entertain him with a Wonder or surprising Curiosity.

§ 23. Sentence is an instructive or lively Remark made on something very observable and agreeably surprising; which contains much Sense in few Words.

'Tis either direct and plain; as, in all the Affairs of the World so much Reputation is really so much Power<sup>a</sup>. Or indirect and disguised; as,

— Fool, not to think how vain,  
Against th' Omnipotent to rise in Arms<sup>b</sup>!

<sup>a</sup> Tillotson.

<sup>b</sup> Milton's Par. Lost, vi. 135, 136.

This is a very dextrous and prevalent Way of bringing in a *Sentence*. You are entertained with a noble Reflection when you did not expect it; and pleasantly surpris'd and instructed without the Appearance and Formality of *Art*. Not to come down to useless Nicety and Distinction, a *Sentence* appears with most Beauty and Advantage when it is put into some of these following Forms.

1. When it is expressed in any Way of *Exclamation*, but peculiarly of Wonder or Indignation; as,

*How advantageous it is to pass through Adversities to the Enjoyment of Prosperity<sup>a</sup>!*

*How sharper than a Serpent's Tooth it is to have a thankless Child<sup>b</sup>!*

2. When it is put into a moving *Expostulation*, or pressing *Interrogation*.

*Are these our Scepters? These our due Rewards?  
And is it thus that Jove his plighted Faith regards<sup>c</sup>?*

3. When the *Sentence* is delivered, and a Reason immediately added to support it. *In a Government it is much better to be unmindful of good Services than bad; For a good Man only becomes more slow, when you take no Account of him; a bad Man more daring and insolent<sup>d</sup>.*

4. When a *Sentence* is made up of a short Relation, and a clear and pertinent Remark upon it.

*Messalina desir'd the Name of Matrimony (with her Adulterer Silius) purely for the Greatness of the Infamy; which is the last Pleasure of profligate People<sup>e</sup>.*

And this is near akin to the *Epiphonema*, of which we shall presently speak two or three Words.

*Sentences* must not stand awkward and bulky out of the Discourse, but be neatly interwoven and wrought into it.

They must be unaffected and significant; and such as the Subject easily suggests to a thoughtful and distinguishing Man.

*Sentences* are the Ornaments and *Lights* of a Discourse; and therefore as *Lights* and *Shades* are in a good *Picture*, so ought *Sentences* to be so exactly and judiciously mixed with the other Parts of the Discourse, that all together may make up one uniform *Beauty*, one regular and consummate *Piece*.

<sup>a</sup> Pliny, p. 125. *Panegy. Edit. Lipsii, 1652.*

<sup>b</sup> Shakespear. <sup>c</sup> Dryd. Virg. *Æn. i.*

<sup>d</sup> Sallust. Bell. Jugurth. p. 61.

<sup>e</sup> Tacit. Annal. 11. c. 9. p. 250.

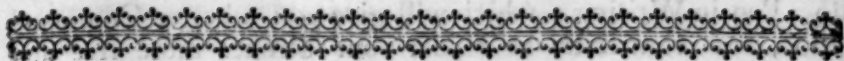


§ 24. *Epiphonema* is an Acclamation, containing a lively Remark placed at the End of a Discourse or Narration. So *Milton*, on the Obstinacy of the Rebel *Angels*, who were so infatuated that they would not submit, though they knew *Almighty Power* and *Majesty* came armed against them :

*In heavenly Minds can such Perverseness dwell !*

This Figure closes a Narration in a very advantageous and taking Manner, deeply impresses the Thing related upon the Memory of the *Reader* ; and leaves him in a good Humour, well satisfied and pleased with the Sense and Sagacity of his *Author*.



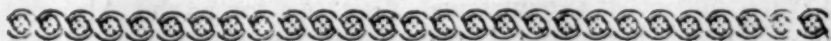


# P. A R T VI.

## O F

# D R A W I N G.

**T**HOUGH some may look upon Drawing as one of those Accomplishments that are rather ornamental than useful, yet so elegant and agreeable an Amusement for leisure Hours, as the Art of Drawing affords, should by no means be neglected in the Education of Youth; especially where any Genius or Inclination that Way is discovered in the Pupil. And I am far from being of Opinion that it is merely ornamental; for besides the great Use it is of to Painters, Engravers, Architects, Engineers, Gardiners, Cabinet-makers, Carvers, Embroiderers, Statuaries, Tapestry-Weavers, and many others concerned in Designing; how very useful and agreeable must it be to any one to be able on the Spot to take the Sketch of a fine Building, or a beautiful Prospect; of any curious Piece of Art, or uncommon Appearance in Nature! I shall therefore think a small Portion of my Time extremely well employed in giving you some short Rules for the Attainment of so much of this Art as is proper for a Gentleman, or a Man of common Business; and in laying before you some few Examples for your Entertainment and Improvement therein, so far as is necessary for one who does not intend to make the Art of Drawing his Employment.



## L E S S O N I.

*Of the proper Materials, and the Manner of using them.*

**T**HE first Thing necessary is to furnish yourself with proper Materials, such as Black-Lead Pencils, Crayons of black, white, or red Chalk, Crow-quill Pens, a Rule and Compasses, Camel's-hair Pencils, and *Indian Ink*. Accustom  
yourself

yourself to hold your Pencil farther from the Point than you do a Pen in Writing; which will give you a better Command of it, and contribute to render your Strokes more free and bold. The Use of your Pencil is to draw the first Sketches or Out-lines of your Piece, as any Stroke or Line that is amiss may in this be more easily rubbed out than in any other Thing; and when you have made your Sketch as correct as you can with the Pencil, you may then draw carefully the best Out-line you have got, with your Crow-quill Pen and \* Ink; after which you may discharge your Pencil-lines, by rubbing the Piece gently with the Crumb of Stale Bread. Having thus got your Out-line clear, your next Work is to shade your Piece properly (for which I shall give you more particular Directions in another Lesson) either by drawing fine Strokes with your Pen where it requires to be shaded, or by washing it with your Hair Pencil and the *Indian Ink*. As to your Rule and Compasses, they are never, or very rarely, to be used, except in measuring the Proportions of your Figures after you have drawn them, to prove whether they are right or not; or, in Houses, Fortifications, and other Pieces of Architecture. See the Proportions of a Human Body, Lesson VII.



## LESSON II.

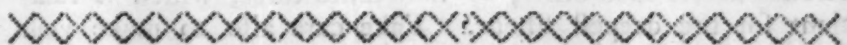
*Of drawing Lines, Squares, Circles, and other regular and irregular Figures.*

**H**AVING got all these Implements in Readiness, your first Practice must be to draw strait and curve Lines, with Ease and Freedom, upwards and downwards, sideways to the Right or Left, or in any Direction whatsoever. You must also learn to draw, by Command of Hand, Squares, Circles, Ovals, and other Geometrical Figures; for as the Alphabet, or a Knowledge of the Letters, is an Introduction to Grammar; so is Geometry to Drawing. The Practice of drawing these simple Figures till you are Master of them will enable you to imitate, with greater Ease and Accuracy, many things both in Nature and Art. And here it will be proper that you

\* The Ink made use of for this Purpose must not be common, but *Indian Ink*: which is much softer than the other, and does not run: By mixing it with Water it may be made of any Degree of Strength, and used in a Pen like common Ink.



take one Piece of Advice, and that is, never to be in a Hurry. When we walk slowly, we walk securely: but if we run, we are in Danger of stumbling or falling. Be sure therefore to make yourself perfectly Master of one Figure before you proceed to another; the Advantage, and even Necessity of this, will appear as you proceed. If you turn to the Plate which corresponds with this Lesson, you will find many Examples, all which I would have you imitate with great Care; for it is Practice more than Precepts that must teach you the Art of Drawing; and from time to time I will direct you. Two Observations more may be proper with regard to Drawing: One is, that the Pupil accustom himself to draw all his Figures very large, which is the only Way of acquiring a free bold Manner of Designing; the other is, that he practise Drawing till he has gained a tolerable Mastery of his Pencil, before he attempts to shadow any Figure or Object of any Kind whatever.

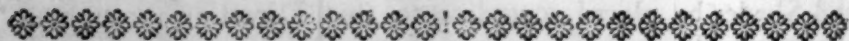


### LESSON III.

#### *Of Light and Shade.*

**A**FTER you have made yourself in some measure perfect in drawing Out-lines, your next Endeavour must be to shade them properly. It is this which gives an Appearance of Substance, Shape, Distance, and Distinction, to whatever Bodies you endeavour to represent, whether animate or inanimate. Your best Rule for doing this is, to consider from what Point, and in what Direction, the Light falls upon the Objects which you are delineating, and let all your Lights and Shades be placed according to that Direction throughout the whole Work. That Part of the Object must be lightest, which hath the Light most directly opposite to it; if the Light falls sideways on your Picture, you must make that Side which is opposite to it lightest, and that Side which is farthest from it darkest. If you are drawing the Figure of a Man, and the Light be placed above the Head, then the Top of the Head must be made lightest, the Shoulders next lightest, and the lower Parts darker by degrees. That Part of the Object, whether in naked Figures, or Drapery, or Buildings, that stands farthest out, must be made the lightest, because it comes nearest to the Light; and the Light loseth so much of  
its

its Brightness, by how much any Part of the Body bends inward, because those Parts that stick out hinder the Lustre and full Brightness of the Light from striking on those Parts that fall in. *Titian* used to say, that he knew no better Rule for the Distribution of Lights and Shadows, than his Observations drawn from a Bunch of Grapes. Sattins and Silks, and all other shining Stuffs, have certain glancing Reflections, exceeding bright, where the Light falls strongest. The like is seen in Armour, Brass-pots, or any other glittering Metal, where you see a sudden Brightness in the middle, or Center of the Light, which discovers the shining Nature of such Things. Observe also, that a strong Light requires a strong Shade, a fainter Light a fainter Shade; and that an equal Balance be preserved throughout the Piece between the Lights and Shades. Those Parts which must appear round, require but one Stroke in shading, and that sometimes but very faint; such Parts as should appear steep or hollow, require two Strokes across each other, or sometimes three, which is sufficient for the deepest Shade. Take care also to make your Out-lines faint and small in such Parts as receive the Light; but where the Shades fall, your Out-line must be strong and bold. Begin your Shadings from the Top, and proceed downward, and use your utmost Endeavours both by Practice and Observation to learn how to vary the Shadings properly, for in this consists a great deal of the Beauty and Elegance of Drawing. Another Thing to be observed is, that as the human Sight is weakened by Distances, so Objects must seem more or less confused or clear according to the Places they hold in the Piece: Those that are very distant; weak, faint, and confused: Those that are near and on the foremost Ground; clear, strong, and accurately finished.



#### LESSON IV.

*Of drawing Flowers, Fruits, Birds, Beasts, &c.*

I Would have you proceed now to make some Attempts at drawing Flowers, Fruits, Birds, Beasts, and the like; not only as it will be a more pleasing Employment; but as I think it an easier Task than the drawing of Hands and Feet, and other Parts of the human Body, which require not only more Care, but greater Exactness and nicer Judgment. I have

have very few Rules or Instructions to give you upon this Head; the best Thing you can do is, to furnish yourself with good Prints or Drawings by way of Examples, and with great Care and Exactness to copy them; a few such are here laid before you by way of Specimen, which you will do well to bestow some Study and Pains upon before you proceed any farther. If it is the Figure of a Beast, begin with the Forehead, and draw the Nose, the upper and under Jaw, and stop at the Throat. Then go to the Top of the Head and form the Ears, Neck, Back, and continue the Line till you have given the full Shape of the Buttock. Then form the Breast, and mark out the Legs and Feet and all the smaller Parts. And last of all finish it with the proper Shadows. It is not amiss by way of Ornament to give a small Sketch of Landskip, and let it be suitable and natural to the Place or Country of the Beast you draw. Much the same may be said with regard to Birds.



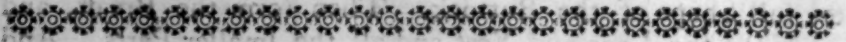
## LESSON V.

*Of drawing Eyes, Ears, Legs, Arms, Hands, Feet, &c.*

**A**S to the drawing of Eyes and Ears, Legs and Arms, you will have very little more to do than to copy carefully the Examples which are given you in these *Plates*. But the Actions and Postures of the Hands are so many and various, that no certain Rules can be given for drawing them, that will universally hold good. Yet as the Hands and Feet are difficult Members to draw, it is very necessary, and well worth while, to bestow some Time and Pains about them, carefully imitating their various Postures and Actions, so as not only to avoid all Lameness and Imperfection, but also to give them Life and Spirit. To arrive at this, great Care, Study, and Practice are requisite; particularly in imitating the best Prints or Drawings you can get of Hands and Feet, (some pretty good Examples of which you have at the End of the Lessons in *Plate 4*, *5*, and *6*;) for as to the mechanical Rules of drawing them by Lines and Measures, they are not only perplexed and difficult, but also contrary to the Practice of the best Masters. One general Rule however may be given (which is universally to be observed in all Subjects), and that is, not to finish perfectly at first any single Part, but to sketch



Sketch out faintly, and with light Strokes of the Pencil, the Shape and Proportion of the whole Hand, with the Action and Turn of it; and after considering carefully whether this first Sketch be perfect, and altering it where-ever it is amiss, you may then proceed to the Bending of the Joints, the Knuckles, the Veins, and other small Particulars, which, when you have got the whole Shape and Proportion of the Hand or Foot, will not only be more easily, but also more perfectly designed.



## LESSON VI.

### *Of drawing Faces.*

**T**HE Head is usually divided into four equal Parts.  
 1. From the Crown of the Head to the Top of the Forehead. 2. From the Top of the Forehead to the Eye-brows. 3. From the Eye-brows to the Bottom of the Nose. 4. From thence to the Bottom of the Chin. But this Proportion is not constant; those Features in different Men being often very different as to Length and Shape. In a well-proportioned Face, however, they are nearly right. To direct you therefore in forming a perfect Face, your first Business is to draw a compleat Oval, in the Middle of which, from the Top to the Bottom, draw a perpendicular Line. Thro' the Center or Middle of this Line draw a diameter Line, directly across from one Side to the other of your Oval. On these two Lines all the Features of your Face are to be placed as follows. Divide your perpendicular Line into four equal Parts: The first must be allotted to the Hair of the Head, the second is from the Top of the Forehead to the Top of the Nose between the Eye-brows; the third is from thence to the Bottom of the Nose, and the fourth includes the Lips and Chin. Your diameter Line, or the Breadth of the Face, is always supposed to be the Length of five Eyes, you must therefore divide it into five equal Parts, and place the Eyes upon it so as to leave exactly the Length of one Eye betwixt them. This is to be understood only of a full front Face; for if it turn to either Side, then the Distances are to be lessened on that Side which turns from you, less or more in proportion to its Turning. The Top of the Ear is to rise parallel to the Eye-brows, at the End of the diameter Line; and the Bot-  
 tom



tom of it must be equal to the Bottom of the Nose. The Nostrils ought not to come out further than the Corner of the Eye in any Face, and the Middle of the Mouth must always be placed upon the perpendicular Line.

There is an ingenious Device which perhaps may somewhat assist you in forming the Face according to its different Turnings, and in placing the Features properly thereon. Procure a Piece of Box, or other smooth even-coloured Wood, and get it turned in the Shape of an Egg, which is pretty nearly the Shape of an human Head. Draw a Line upon it from Point to Point longways, as you see in *Fig. 1. Plate the 7th.* Divide this Line into two equal Parts, and draw another through that Point, directly across it at right Angles, as you see in *Fig. 2.* The Features being drawn on these two Lines according to the Rules given you above, will produce a foreright Face, as you see in *Fig. 3.* Turn the Oval a small Matter from the Left Hand to the Right, and the Perpendicular will appear bent like a Bow or Arch, as you see in *Fig. 4.* upon which the particular Features are to be drawn as in *Fig. 5.* always observing in what Manner the Nose projects beyond the Round of the Oval. The same must be observed if you turn the Oval from the Right to the Left, as in *Fig. 6.* If you incline the Oval downwards and to the Right, the cross Lines will appear as in *Fig. 7.* and the Features drawn on them as in *Fig. 8.* If you turn it upwards reclining to the Left, the Lines of the Cross will appear as in *Fig. 9.* and a Face drawn on them, as in *Fig. 10.* A great Variety of Faces may be shewn on this Oval, according as you incline, recline, or turn it more or less: And a Side-Face may be drawn by means of a Perpendicular, as in *Fig. 11.* on which the Forehead, Nose, Mouth, and Chin, are to be described, as you see in *Fig. 12.*

These Rules being thoroughly understood, and imprinted in your Mind by frequent Practice, I doubt not but you will be able in a little Time to draw Faces from your own Fancy and Invention: And you will be better grounded in the Art than those who merely draw from Prints or Pictures without understanding any thing of the Rules. But, after this, I would have you carefully study and copy after the best Drawings or Pictures you can procure. In the mean time, those that are here before you are well worthy of your best Attention, and most careful Imitation.

## LESSON VII.

*Of Drawing Human Figures.*

**I**F you are tolerably perfect in drawing Hands, Feet, Heads, and Faces, you may now attempt to draw the human Figure at length. In order to which, first form your Oval for the Head, then draw a perpendicular Line from the Bottom of the Head six times its Length (for the Length of the Head is one-seventh Part of the Length of the Figure).

The best proportioned Figures of the Ancients are 7 Heads  $\frac{3}{4}$  in Height. If therefore your Figure stands upright, draw a perpendicular Line from the Top of the Head to the Heel, which you must divide into two equal Parts. The Bottom of the Belly is exactly the Center. Divide the lower Part into two equal Parts again, the Middle of which is the Middle of the Knee. For the upper Part of your Figure you must vary the Method. Take off with your Compasses the Length of the Face (which is 3 Parts in 4 of the Length of the Head); from the Throat-pit to the Pit of the Stomach is one Face, from thence to the Navel is another, and from thence to the lower Rim of the Belly is a third, as you see in the Example *Plate* the 9th, which Line must be divided into seven equal Parts, as you see in the said Figure. Against the End of the first Division place the Breasts, the second comes down to the Navel, the third to the Privities, the fourth to the Middle of the Thigh, the fifth to the lower Part of the Knee, the sixth to the lower Part of the Calf, and the seventh to the Bottom of the Heel, the Heel of the bearing Leg being always exactly under the Pit of the Throat. But, as the Essence of all Drawing consists in making at first a good Sketch, you must in this Particular be very careful and accurate; draw no one Part perfect or exact, till you see whether the whole Draught be good; and when you have altered that to your Mind, you may then finish one Part after another as curiously as you can.

There are some who, having a Statue to copy, begin with the Head, which they finish, and then proceed in the same manner to the other Parts of the Body, finishing as they go; but this Method generally succeeds ill, for if they make the Head in the least too big or too little, the Consequence is a Disproportion between all the Parts, occasioned by their not having sketched the Whole proportionably at first. Remember

ber therefore, in whatever you intend to draw, first to sketch its several Parts, measuring the Distances and Proportions between each with your Finger or Pencil, without using the Compasses; and then judge of them by your Eye, which by degrees will be able to judge of Truth and Proportion, and will become your best and principal Guide. And here let me observe to you, as a general Rule, always to begin with the Right Side of the Piece you are copying; for by that means you will always have what you have done before your Eyes; and the rest will follow more naturally, and with greater Ease: whereas if you begin with the Left Side, your Hand and Arm will cover what you do first, and deprive you of the Sight of it, by which means you will not be able to proceed with so much Ease, Pleasure, or Certainty.

As to the Order and Manner of your Proceeding in drawing the human Body, you must first sketch the Head, then the Shoulders in the exact Breadth; then draw the Trunk of the Body, beginning with the Arm-pits (leaving the Arms till afterwards), and so draw down to the Hips on both Sides, and be sure you observe the exact Breadth of the Waist. When you have done this, then draw that Leg which the Body stands upon, and afterwards the other which stands loose; then draw the Arms, and last of all the Hands.

Take notice also of the Bowings and Bendings that are in the Body, making the Part which is opposite to that which bends, correspond to it in bending with it. For instance, if one Side of the Body bend in, the other must stand out answerable to it: If the Back bend in, the Belly must stick out; if the Knee bend out, the Ham must fall in; and so of any other Joint in the Body. Finally, endeavour to form all the Parts of your Figure with Truth, and in just Proportion: Not one Arm or one Leg bigger or less than the other; not broad *Herculean* Shoulders, with a thin and slender Waist; nor raw and bony Arms, with thick and gouty Legs; but let there be a kind of harmonious Agreement amongst the Members, and a beautiful Symmetry throughout the whole Figure.

I will conclude this Lesson by giving you, from *Fresnoy*,

*The Measures of the Human Body.*

The Ancients have commonly allowed eight Heads to their Figures, though some of them have but seven: But we ordinarily divide the Figures into ten Faces; that is to say, from the Crown of the Head to the Sole of the Foot, in the following Manner:

From the Crown of the Head to the Forehead is the third Part of a Face.

The Face begins at the Root of the lowest Hairs which are upon the Forehead, and ends at the Bottom of the Chin.

The Face is divided into three proportional Parts; the first contains the Forehead, the second the Nose, and the third the Mouth and Chin.

From the Chin to the Pit betwixt the Collar-Bones, are two Lengths of a Nose.

From the Pit betwixt the Collar-Bones to the Bottom of the Breast, one Face.

From the Bottom of the Breast to the Navel, one Face.

From the Navel to the Genitors, one Face.

From the Genitors to the upper Part of the Knees, two Faces.

The Knee contains half a Face.

From the lower Part of the Knee to the Ankle, two Faces.

From the Ankle to the Sole of the Foot, half a Face.

A Man, when his Arms are stretched out, is, from the longest Finger of his Right Hand to the longest of his Left, as broad as he is long.

From one Side of the Breasts to the other, two Faces.

The Bone of the Arm called *Humerus* is the Length of two Faces, from the Shoulder to the Elbow.

From the End of the Elbow to the Root of the little Finger, the bone called *Cubitus*, with Part of the Hand, contains two Faces.

From the Box of the Shoulder-blade to the Pit betwixt the Collar-Bones, one Face.

If you would be satisfied in the Measures of Breadth from the Extremity of one Finger to the other, so that this Breadth should be equal to the Length of the Body, you must observe that the Boxes of the Elbows with the *Humerus*, and of the *Humerus* with the Shoulder-blade, bear the Proportion of half a Face, when the Arms are stretched out.

The Sole of the Foot is the sixth Part of the Figure.

The Hand is the Length of the Face.

The Thumb contains a Nose.

The Inside of the Arm, from the Place where the Muscle disappears, which makes the Breast, called the Pectoral Muscle, to the Middle of the Arm, four Noses.

From the Middle of the Arm to the Beginning of the Hand, five Noses.

The longest Toe is a Nose long.

The two utmost Parts of the Teats and the Pit betwixt the Collar-Bones of a Woman make an equilateral Triangle.

For



For the Breadth of the Limbs, no precise Measure can be given; because the Measures themselves are changeable according to the Quality of the Persons; and according to the Movement of the Muscles.

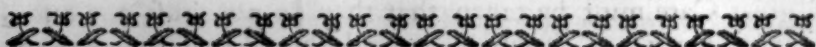


## LESSON VIII.

### *Of Drapery.*

**I**N the Art of cloathing your Figures, or casting the Drapery properly and elegantly upon them, many Things are to be observed. 1. The Eye must never be in doubt of its Object, but the Shape and Proportion of the Part or Limb, which the Drapery is supposed to cover, must appear; at least so far as Art and Probability will permit; and this is so material a Consideration, that many Artists draw first the naked Figure, and afterwards put the Draperies upon it. 2. The Drapery must not fit too close to the Parts of the Body; but let it seem to flow round, and as it were to embrace them; yet so as that the Figure may be easy, and have a free Motion. 3. The Draperies which cover those Parts that are exposed to great Light must not be so deeply shaded as to seem to pierce them; nor should those Members be crossed by Folds that are too strong; lest, by the too great Darkeness of their Shades the Members look as if they were broken. 4. The great Folds must be drawn first, and then stroked into lesser ones; and great Care must be taken that they do not cross one another improperly. 5. Folds in general should be large, and as few as possible. However, they must be greater or less according to the Quantity and Quality of the Stuffs of which the Drapery is supposed to be made. The Quality of the Persons is also to be considered in the Drapery. If they are Magistrates, their Draperies ought to be large and ample; if Country Clowns or Slaves, they ought to be coarse and short; if Ladies or Nymphs, light and soft. 6. Suit the Garments to the Body, and make them bend with it, according as it stands in or out, strait or crooked; or as it bends one Way or another; and the closer the Garment sits to the Body, the narrower and smaller must be the Folds. 7. Folds well-imagined give much Spirit to any Kind of Action; because their Motion implies a Motion in the acting Member, which seems to draw

them forcibly, and makes them more or less stirring as the Action is more or less violent. 8. An artful Complication of Folds in a circular Manner greatly helps the Effect of Fore-shortenings. 9. All Folds consist of two Shades and no more; which you may turn with the Garment at Pleasure, shadowing the inner Side deeper, and the outer more faintly. 10. The Shades in Silk and fine Linen are very thick and small, requiring little Folds and a light Shadow. 11. Observe the Motion of the Air or Wind, in order to draw the loose Apparel all flying one Way; and draw that Part of the Garment that adheres closest to the Body, before you draw the looser Part that flies off from it; lest, by drawing the loose Part of the Garment first, you should mistake the Position of your Figure, and place it awry. 12. Rich Ornaments, when judiciously and sparingly used, may sometimes contribute to the Beauty of Draperies. But such Ornaments are far below the Dignity of Angels or heavenly Figures; the Grandeur of whose Draperies ought rather to consist in the Boldness and Nobleness of the Folds, than in the Quality of the Stuff, or the Glitter of Ornaments. 13. Light and flying Draperies are proper only to Figures in great Motion, or in the Wind; but when in a calm Place, and free from violent Action, their Draperies should be large and flowing; that, by their Contrast and the Fall of the Folds, they may appear with Grace and Dignity. And thus much for Drapery, some few Examples of which you will find in *Plate 10*. I will now endeavour to give you a Taste of that, which, though it may be the most difficult, is certainly the most agreeable Part of this Study, I mean the Art of expressing the Passions.



## LESSON IX.

### *On the Passions.*

THE Passions, says M. *Le Brun*, are Motions of the Soul, either upon her pursuing what she judges to be for her Good, or shunning what she thinks hurtful to her; and commonly, whatever causes Emotion of Passion in the Soul, creates also some Action in the Body. It is therefore necessary for a Painter to know which are the different Actions in the Body that express the several Passions of the Soul, and how to delineate them. But, first of all, it may be proper you should

should learn somewhat of the System of the Passions, and their Connexion with and Relation to each other; I will therefore give you a short moral Account of them from Dr. Watts.

“ An Object which is suited to excite the Passions, says he, must have one of these three Properties, viz. it must be either, 1. *Rare and uncommon*; or, 2. *Good and agreeable*; or, 3. *Evil and disagreeable*: Or at least we must have some such Ideas and Apprehensions of it, before it can excite any Passion in us.

“ Now if we will distinguish the chief Passions of our Nature according to their Objects, and confine ourselves to the common Words and Names whereby they are usually called, we may make three Ranks of them; which, for Distinction's sake, I shall name the first, second, and third Rank. The two first are *Primitive*, the third is *Derivative*.

“ The first Rank of Passions are these three; *Admiration*, *Love*, and *Hatred*.

“ If the Object be rare and uncommon, it excites *Admiration* or *Wonder*,

“ If we look on it as good, or any way agreeable to us, it may engage our *Love*; but if it be evil or disagreeable, it moves our *Hatred*.

“ The second Rank of chief Passions are the divers Kind of *Love* and *Hatred*, which are also distinguished by their Objects.

“ If the Object appear valuable, it raises a *Love* which we call *Esteem*; if worthless, the *Hatred* is called *Contempt*.

“ If the Object appear fit to receive Good from us, it is *Love of Benevolence*, or *Good-will*: If it appear rather fit to receive Evil from us, the *Hatred* is called *Malevolence*, or *Ill-will*.

“ If the Object appear pleasing, and fit to do us Good, it raises the *Love of Complacence*, or *Delight*; if it be displeasing, and unfit to do us Good, it excites a *Displacence*, or *Dislike*.

“ From *Love* and *Hatred* in their different Kinds (but chiefly from *Complacence* and *Displacence*) arise several more chief Passions, which may be called the third Rank, and which are also distinguished by their Objects.

“ Note, In this Pair of Passions, and in all the third Rank, which is chiefly derived from them, the pleasing Object is more properly called *Good*, and the displeasing Object is

“ more properly called *Evil*, than in the Passions before mentioned.

“ If the Good be absent or unpossessed, and possible to be obtained, the Passion of Love grows up to *Desire*; if the Evil may possibly come upon us, the Hatred expresses itself in *Aversion*, or *Avoidance*. Though there may be also an *Aversion* to some Evil from which we are sufficiently secure.

“ If there be any Prospect of obtaining the absent Good, the Passion excited is *Hope*; but if the absent Evil be likely to come upon us, it raises the Passion of *Fear*.

“ *Fear* also arises from a present or expected Good in danger of being lost: And there is a *Hope* of Security from some absent threatening Evil, or of Deliverance from some Evil that is present.

“ If the Good be actually obtained, or the Evil prevented, it excites *Joy* and *Gladness*; if the Good be actually lost, or the Evil come upon us, it causes *Sorrow* or *Grief*.

“ Whoever helps us to attain this Good, or prevents the Evil, excites in us *Gratitude*: Whosoever hinders our Attainment of Good, or promotes the Evil, raises our *Anger*.

“ There are very few, if any, of the Passions for which we have any Name, and which are usually taken notice of in the Heart of Man, but what may be reduced to some or other of these general Heads. And though I don't pretend to lay down this Distinction and Arrangement of the *Passions of Man* as an uncontroverted or certain Thing; yet, upon the best Survey I can take of the various Works of the Heart, as well as of the several Authors who have written on this Subject, I don't find any of them lead me into an easier or better Scheme than this.”

Thus far Dr. *Watts*: which, as it is a concise as well as sensible Account of the Passions, I thought it not improper to put into your Hands at this Time: for though it be not directly to the Purpose, yet it is far from being altogether foreign to it; since he who searches into and understands the secret Springs and Causes of the Passion, will in all Probability express them with greater Judgment and Spirit than he who merely copies them from the external Appearance.

M. *Le Brun* has been extremely happy in expressing many of the Passions, and you cannot study any thing better than the Examples which he has left us of them; some of which are carefully copied in the Plate which corresponds to this Lesson,



fon. However, I am of Opinion with M. *De Piles*, that it is absurd as well as impossible to pretend to give such particular Demonstrations of them as to fix their Expression to certain Strokes, which the Painter should be obliged to make use of as essential and invariable Rules. This, says he, would be depriving the Art of that excellent Variety of Expression which has no other Principle than Diversity of Imagination, the Number of which is infinite. The same Passion may be finely expressed several Ways, each yielding more or less Pleasure in proportion to the Painter's Understanding, and the Spectator's Discernment.

Though every Part of the Face contributes towards expressing the Sentiments of the Heart, yet the Eye-brow, according to M. *Le Brun*, is the principal Seat of Expression, and where the Passions best make themselves known. 'Tis certain, says he, that the Pupil of the Eye, by its Fire and Motion, very well shews the Agitation of the Soul, but then it does not express the Kind or Nature of such an Agitation; whereas the Motion of the Eye-brow differs according as the Passions change their Nature. To express a simple Passion, the Motion is simple; to express a mixed Passion, the Motion is compound: If the Passion be gentle, the Motion is gentle; and if it be violent, the Motion is so too. We may observe farther, says he, that there are two Kinds of Elevation in the Eye-brows. One, in which the Eye-brows rise up in the Middle; this Elevation expresses agreeable Sensations; and it is to be observed that then the Mouth rises at the Corners: Another, in which the Eye-brows rise up at the Ends, and fall in the Middle; this Motion denotes Bodily Pain, and then the Mouth falls at the Corners. In *Laughter* all the Parts agree; for the Eye-brows, which fall toward the Middle of the Forehead, make the Nose, the Mouth, and the Eyes, follow the same Motion. In *Weeping*, the Motions are compound and contrary, for the Eye-brows fall toward the Nose and over the Eyes, and the Mouth rises that Way. 'Tis to be observed also that the Mouth is the Part of the Face which more particularly expresses the Emotions of the Heart: For when the Heart complains, the Mouth falls at the Corners; when it is at Ease, the Corners of the Mouth are elevated; and when it has an Aversion, the Mouth shoots forward, and rises in the Middle.

" The Head, says M. *De Piles*, contributes more to the  
 " Expression of the Passions than all the other Parts of the  
 " Body put together. Those separately can only shew some  
 " few

“ few Passions, but the Head expresses them all. Some, how-  
 “ ever, are more peculiarly express’d by it than others; as  
 “ Humility, by hanging it down; Arrogance, by lifting it up;  
 “ Languishment, by inclining it on one Side; and Obstinacy,  
 “ when with a stiff and resolute Air it stands upright, fixed, and  
 “ stiff between the two Shoulders. The Head also best shews  
 “ our Supplications, Threats, Mildness, Pride, Love, Hatred,  
 “ Joy, and Grief. The whole Face, and every Feature, con-  
 “ tributes something: especially the Eyes, which, as *Cicero*  
 “ says, are the *Windows of the Soul*. The Passions they more  
 “ particularly discover are, Pleasure, Languishing, Scorn, Se-  
 “ verity, Mildness, Admiration, and Anger; to which one  
 “ might add Joy and Grief, if they did not proceed more par-  
 “ ticularly from the Eye-brows and Mouth; but when those  
 “ two Passions fall in also with the Language of the Eyes, the  
 “ Harmony will be wonderful. But though the Passions of  
 “ the Soul are most visible in the Lines and Features of the  
 “ Face, they often require the Assistance also of the other Parts  
 “ of the Body. Without the Hands, for Instance, all Action  
 “ is weak and imperfect; their Motions, which are almost in-  
 “ finite, create numberless Expressions: It is by them that we  
 “ *desire, hope, promise, call, send back*; they are the Instruments  
 “ of *Threatening, Prayer, Horror, and Praise*; by them we  
 “ *approve, condemn, refuse, admit, fear, ask*; express our *Joy*  
 “ and *Grief, our Doubts, Regrets, Pain, and Admiration*. In a  
 “ Word, it may be said, as they are the Language of the  
 “ Dumb, that they contribute not a little to speak a Language  
 “ common to all Nations, which is the Language of Painting.  
 “ But to say how these Parts must be disposed for expressing the  
 “ various Passions, is impossible; nor can any exact Rules be  
 “ given for it, both because the Task would be infinite, and  
 “ because every one must be guided in this by his own Genius,  
 “ and the particular Turn of his own Studies.”

All that I have farther to add on this Lesson is, to tell you,  
 that the Examples of the Passions, which are here set before  
 you for your Imitation, are taken from the best Masters, and  
 endeavoured to be contrasted in such a Manner as to heighten  
 and set off each other, and engage you more agreeably in the  
 Study of them.

## LESSON X.

*On drawing Landskips, Buildings, &c.*

**O**F all the Parts of Drawing, this is the most useful and necessary, as it is what every Man may have occasion for at one time or another. To be able, on the Spot, as I observed before, to take the Sketch of a fine Building, or a beautiful Prospect; of any curious Production of Art, or uncommon Appearance in Nature; is not only a very desirable Accomplishment, but a very agreeable Amusement. Rocks, Mountains, Fields, Woods, Rivers, Cataracts, Cities, Towns, Castles, Houses, Fortifications, Ruins, or whatsoever else may present itself to View on our Journies or Travels, in our own or foreign Countries, may be thus brought home, and preserved for our future Use, either in Business or Conversation. On this Part therefore I would have you bestow somewhat more than ordinary Pains; and I have reserved it to the last, that it may dwell the longest upon your Mind.

All Drawing consists in nicely measuring the Distances of each Part of your Piece by the Eye. In order to facilitate this, you are to imagine in your own Mind that the Piece you copy is divided into Squares. As for Example: Suppose or imagine a perpendicular and a horizontal Line crossing each other in the Center of the Picture you are drawing from: Then suppose also two such Lines crossing your own Copy. Observe in the Original what Parts of the Design those Lines intersect, and let them fall on the same Parts of the supposed Lines in your Copy: I say the supposed Lines, because though Engravers, and others who copy with great Exactness, divide both the Copy and Original into many Squares, as in the Margin, yet this is a Me-



thod I would have you endeavour to do without; as it will be apt to deceive the Learner, who will fancy himself a tolerable Proficient, till he comes to draw after Nature where these Helps are not to be had, when he will find himself miserably defective and utterly at a Loss.

If you are to draw a Landskip from Nature, take your Station on a rising Ground, where you will have a large Horizon; and  
mark

mark your Tablet into three Divisions, downwards from the Top to the Bottom; and divide in your own Mind the Landskip you are to take, into three Divisions also. Then turn your Face directly opposite to the Midst of the Horizon, keeping your Body fixed, and draw what is directly before your Eyes upon the middle Division of your Tablet; then turn your Head, but not your Body, to the Left Hand, and delineate what you view there, joining it properly to what you had done before; lastly, do the same by what is to be seen on your Right Hand, laying down every thing exactly, both with respect to Distance and Proportion.

The best Artists of late, in drawing their Landskips, make them shoot away one Part lower than another. Those who make their Landskips mount up higher and higher, as if they stood at the Bottom of a Hill to take the Prospect, commit a great Error: The best Way is to get upon a rising Ground, make the nearest Objects in your Piece the highest, and those that are farther off, to shoot away lower and lower till they come almost level with the Line of the Horizon, lessening every thing proportionably to its Distance, and observing also to make your Objects fainter and less distinct, the farther they are removed from your Eye. Make all your Lights and Shades fall one Way; and let every thing have its proper Motion, as Trees shaken by the Wind, the small Boughs bending more, and the large ones less; Water agitated by the Wind, and dashing against Ships or Boats; or falling from a Precipice upon Rocks and Stones, and spirting them up again into the Air, and sprinkling all about; Clouds also in the Air, now gathered with the Winds; now violently condensed into Hail, Rain, and the like; always remembering, that whatever Motions are caused by the Wind must be all made to move the same Way, because the Wind can blow but one Way at once.

If you intend to make any considerable Proficiency in this Part of Drawing, a Knowledge of Perspective is absolutely necessary. But for the common Uses which in all Probability you will have to make of Drawing, a careful Imitation of the Examples here laid before you, and other good Prints and Drawings which you may procure, together with frequent Trials from real Objects, such as Houses, Trees, Rocks, Ruins, and the like, will be sufficient; and in a little Time enable you to make such Imitations of natural and artificial Objects, as will fully answer the Ends which a Gentleman can propose in learning the Art.

END OF VOL. I.





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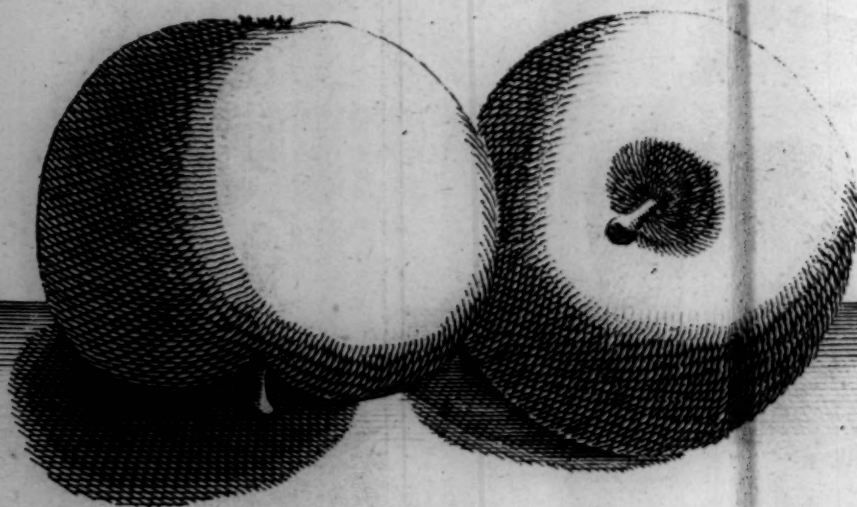
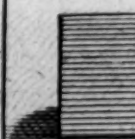
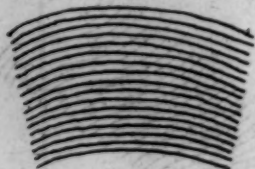
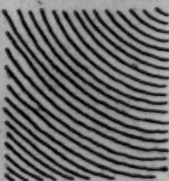
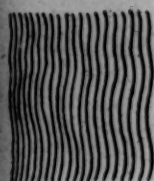
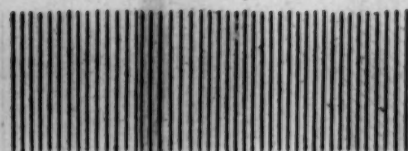
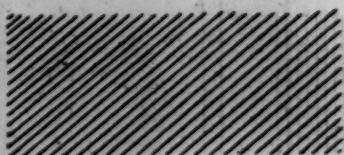
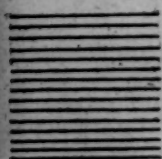
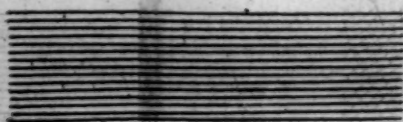
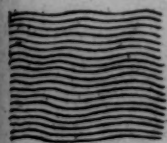
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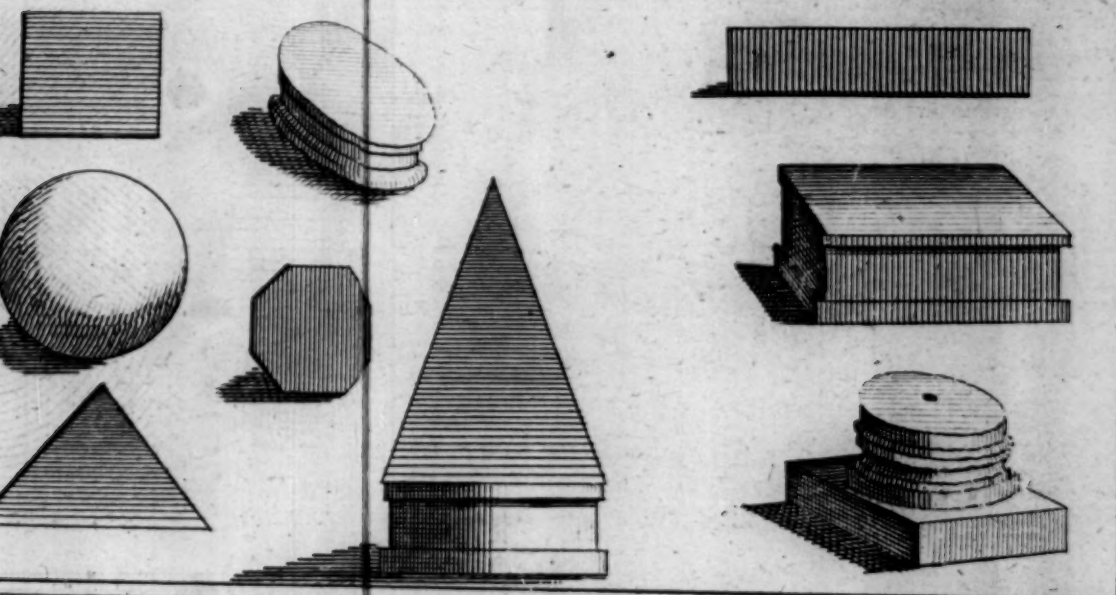


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*Drawing N<sup>o</sup> 1*







*Drawing N<sup>o</sup> 2*

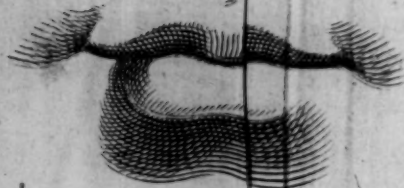


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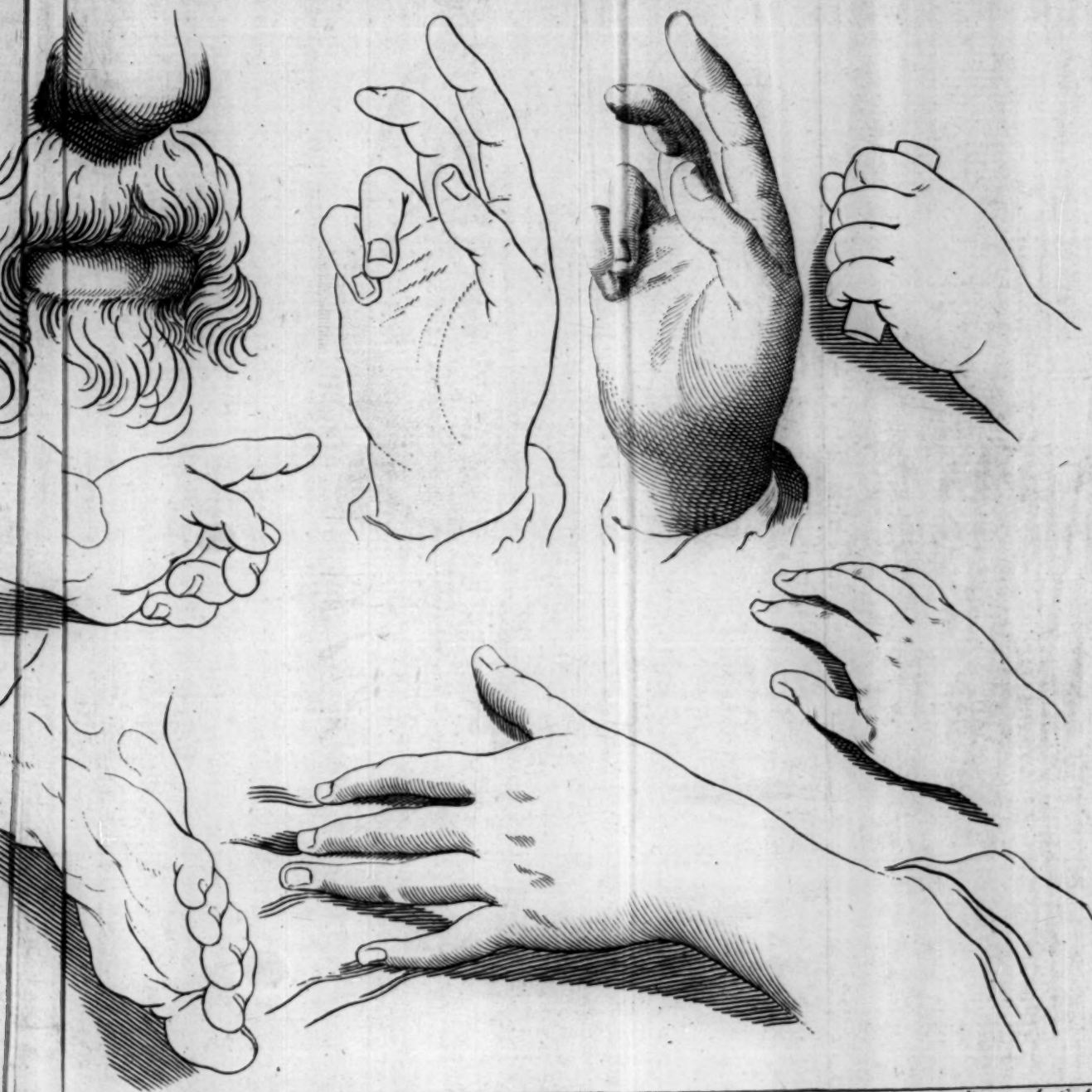




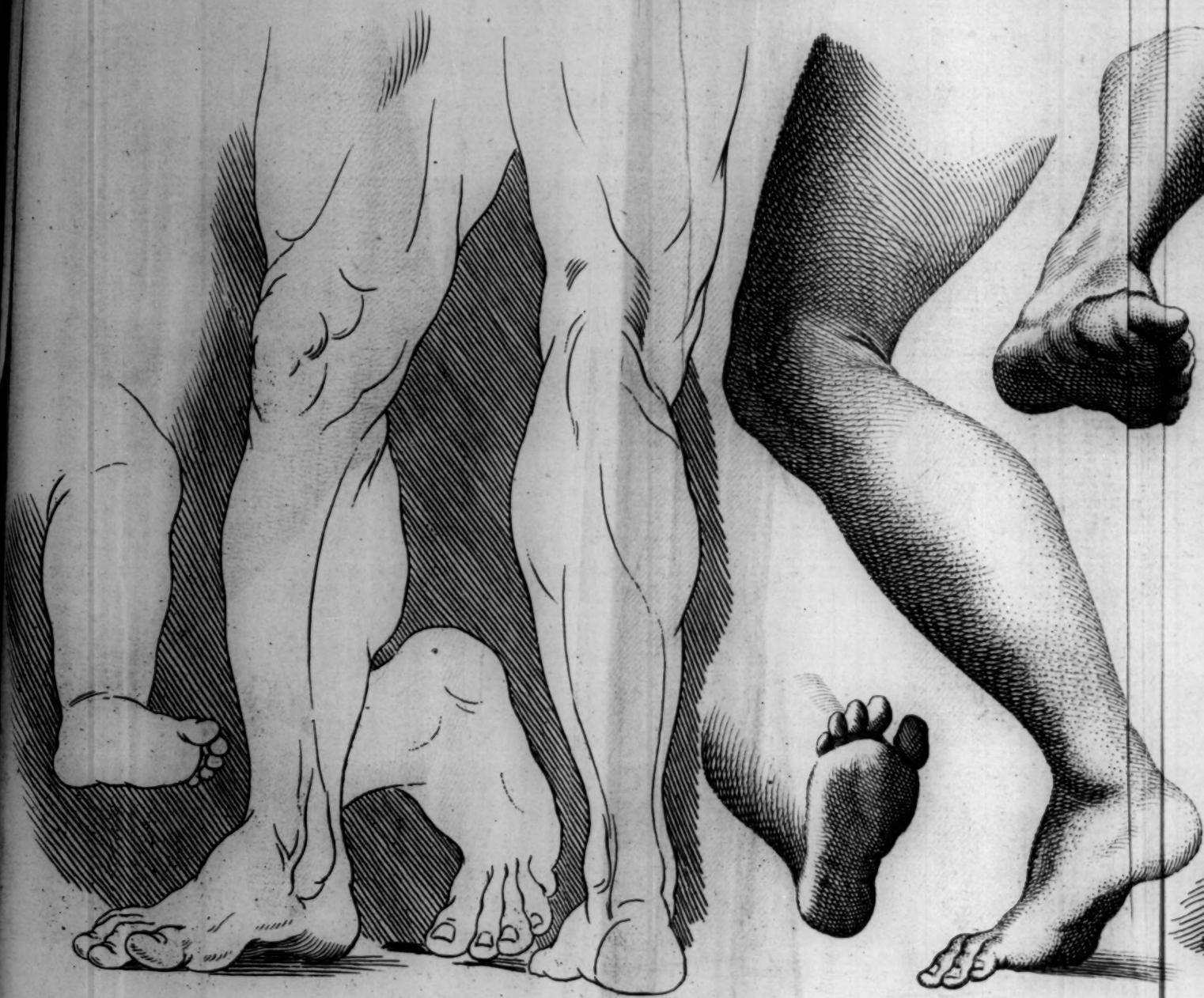


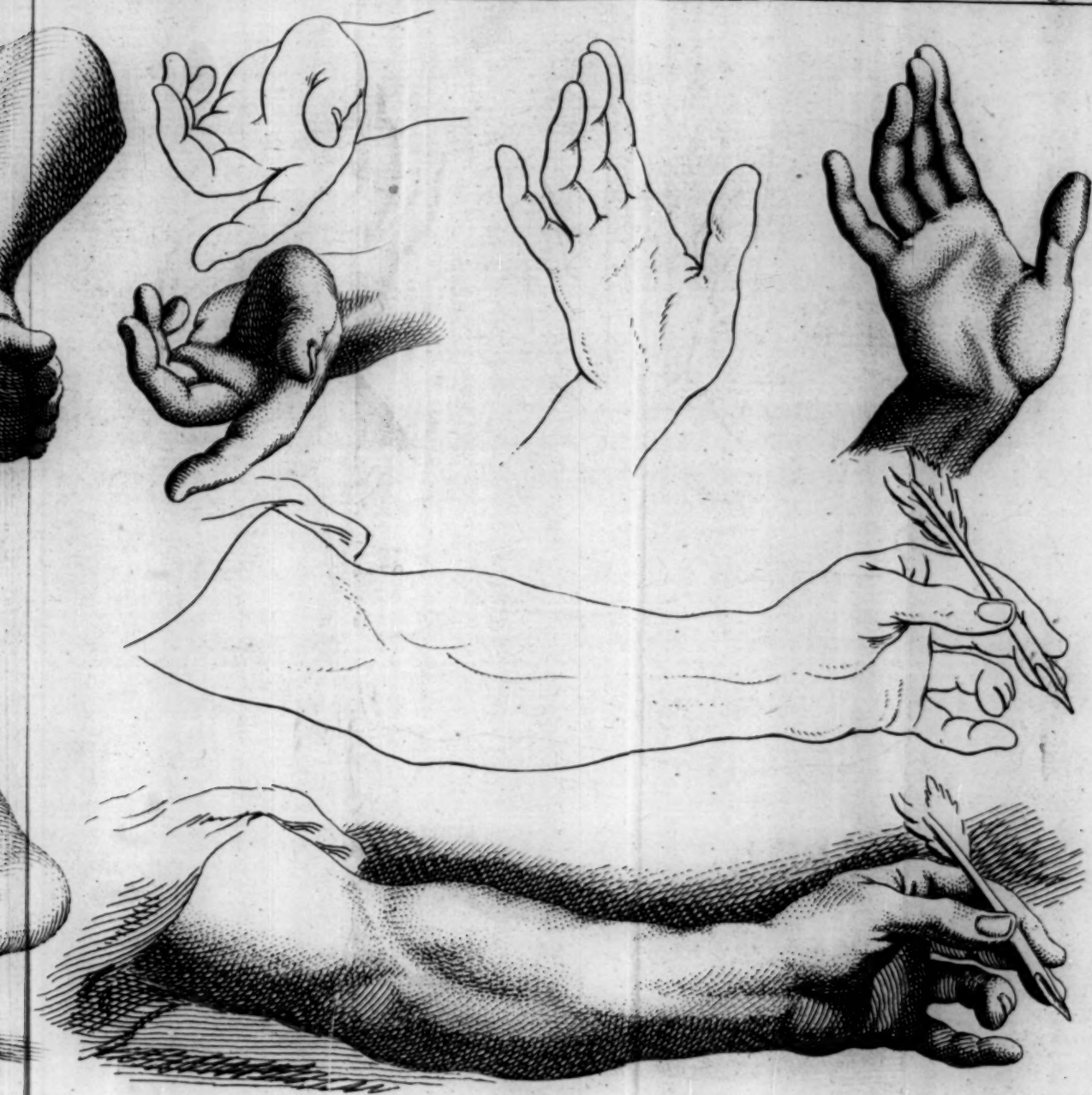
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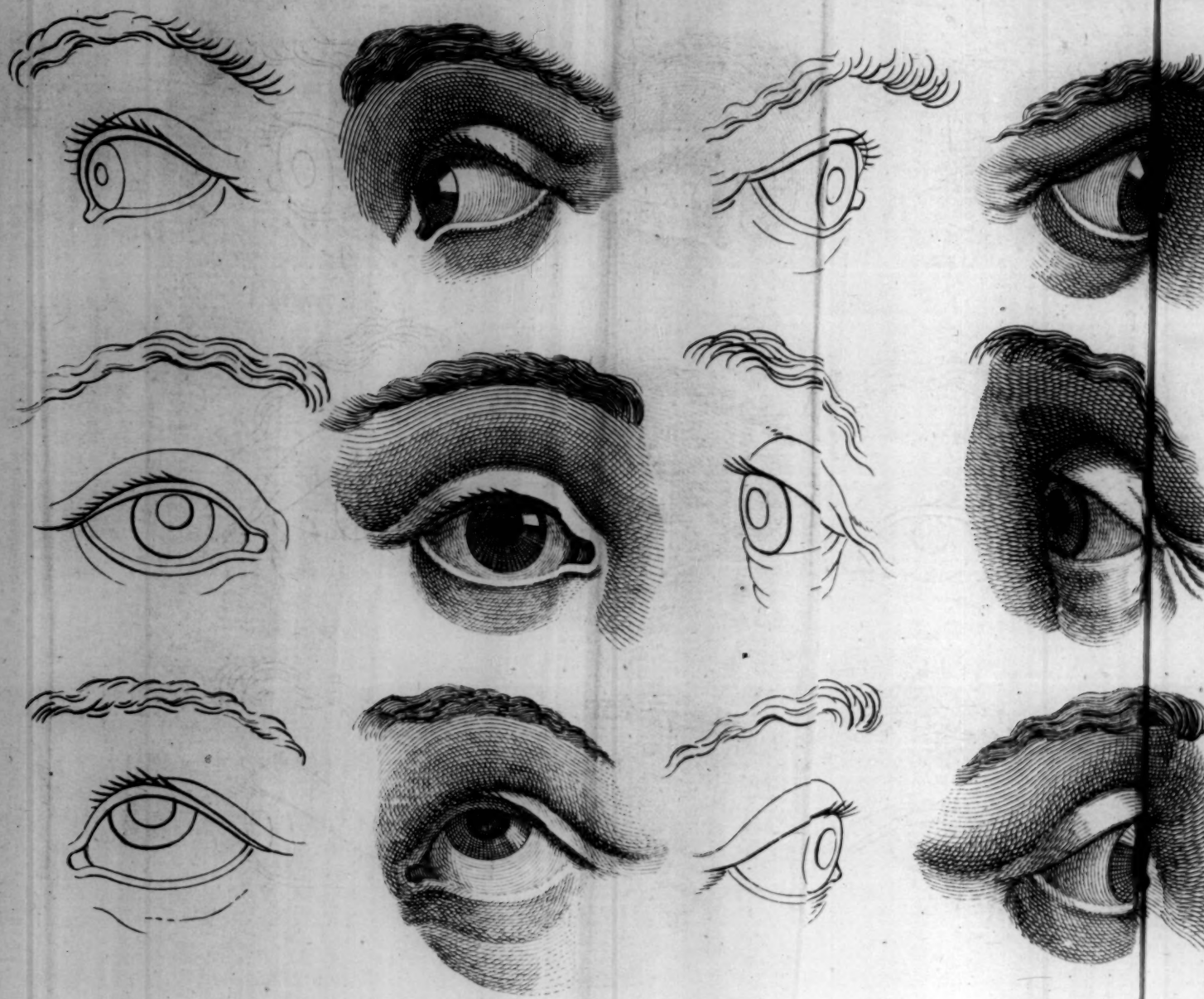










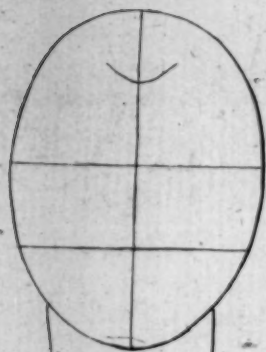
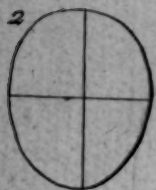
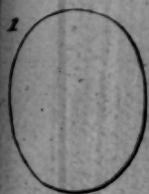




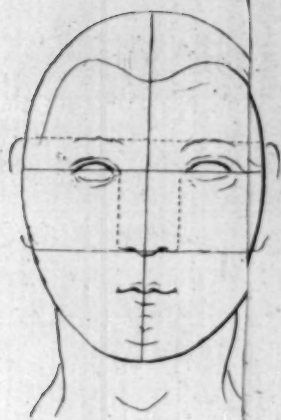
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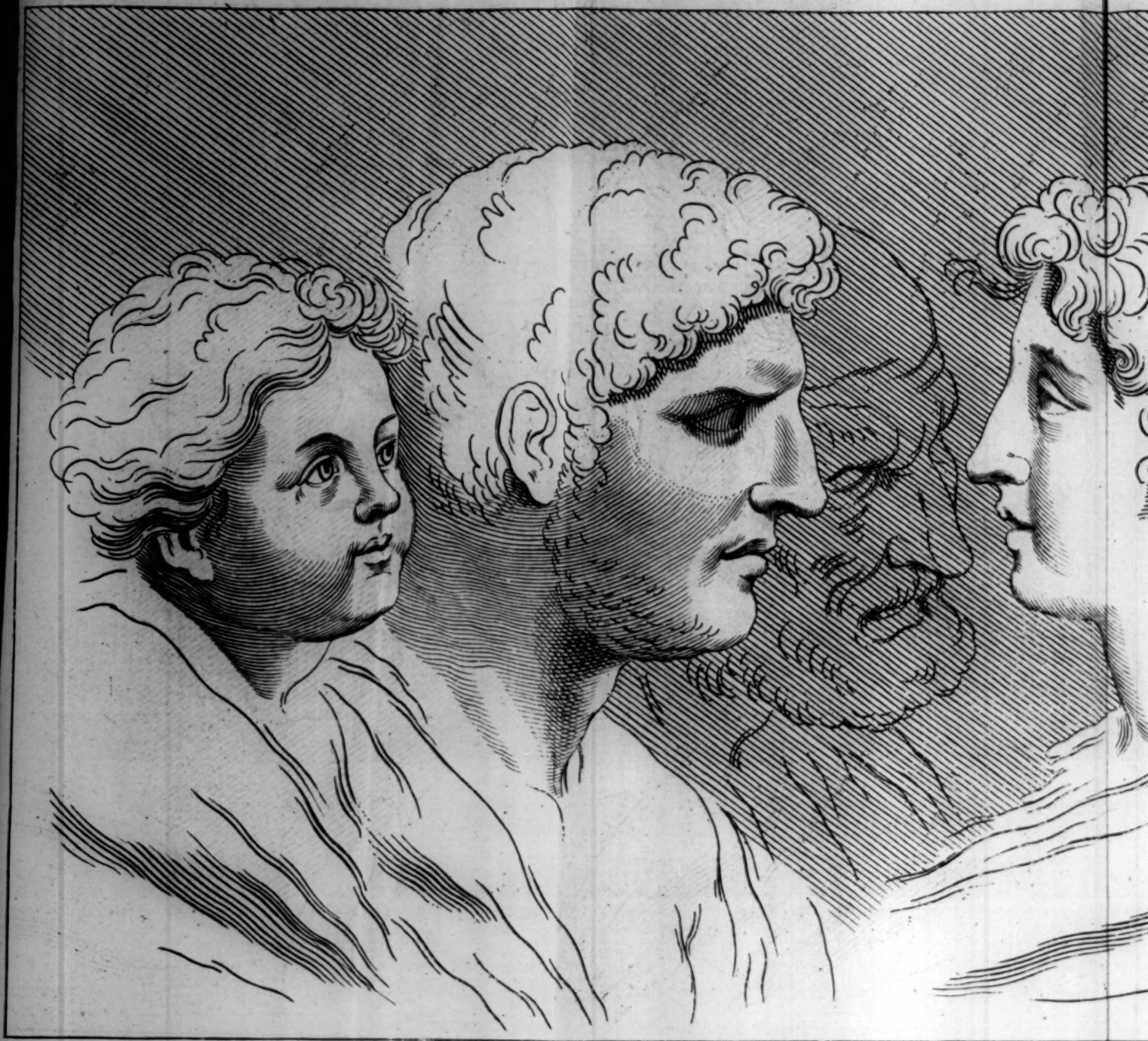
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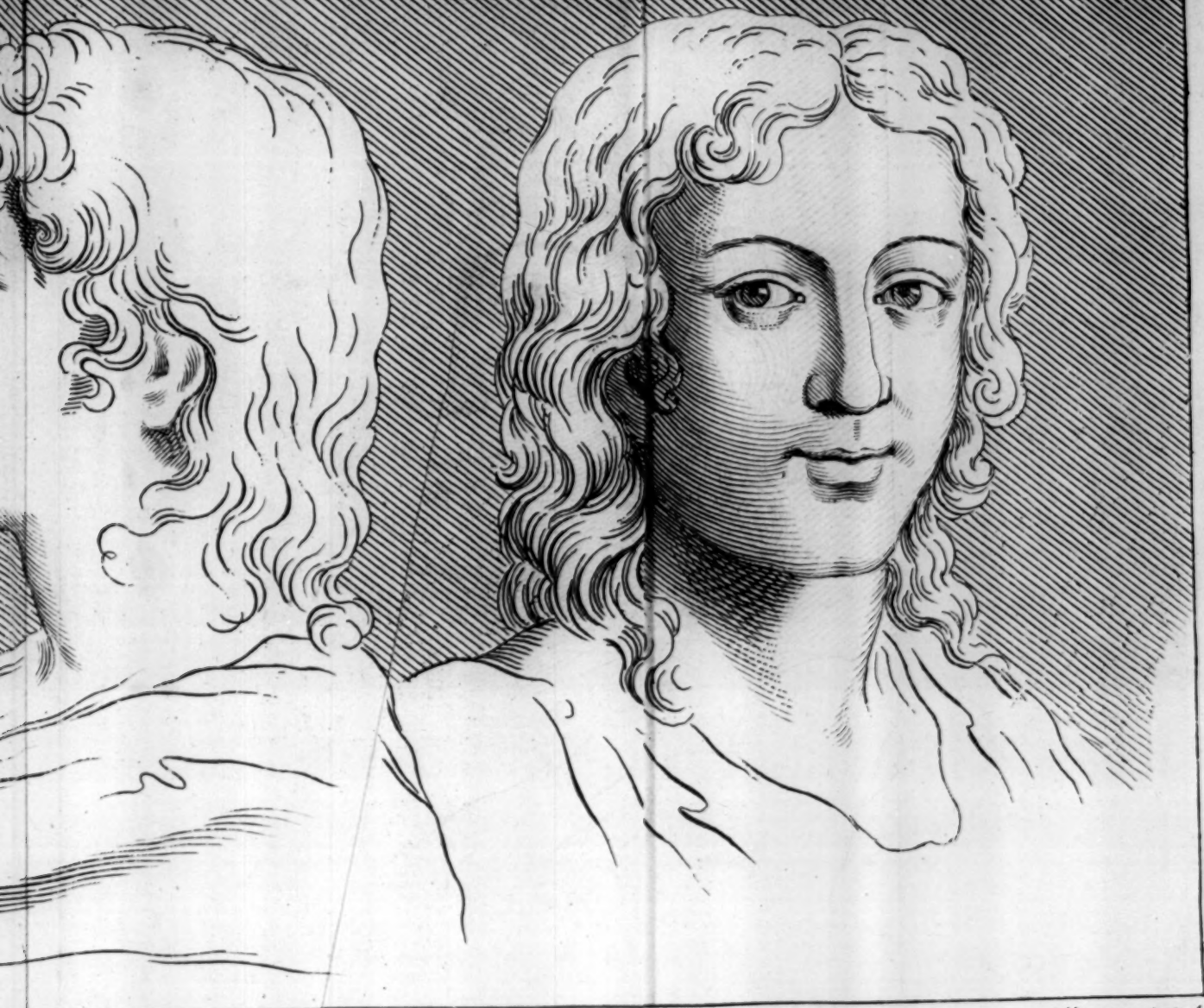




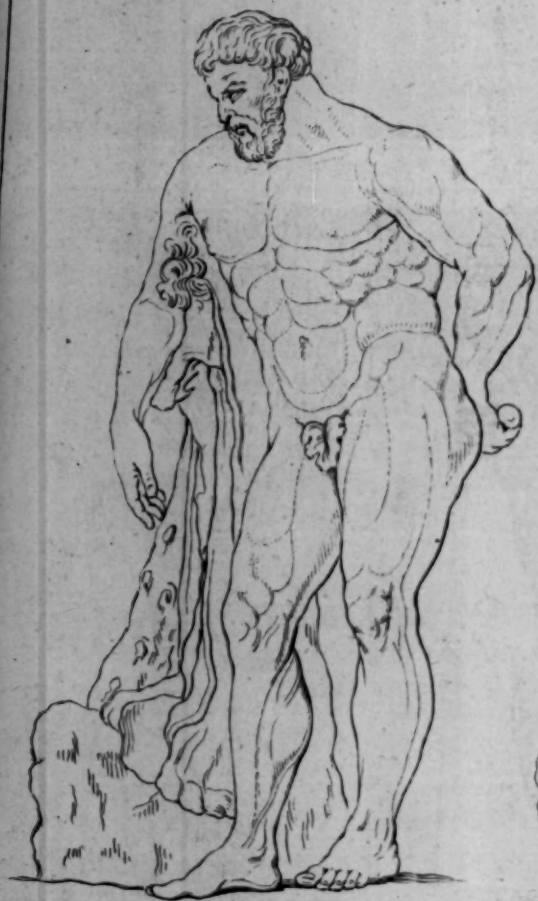


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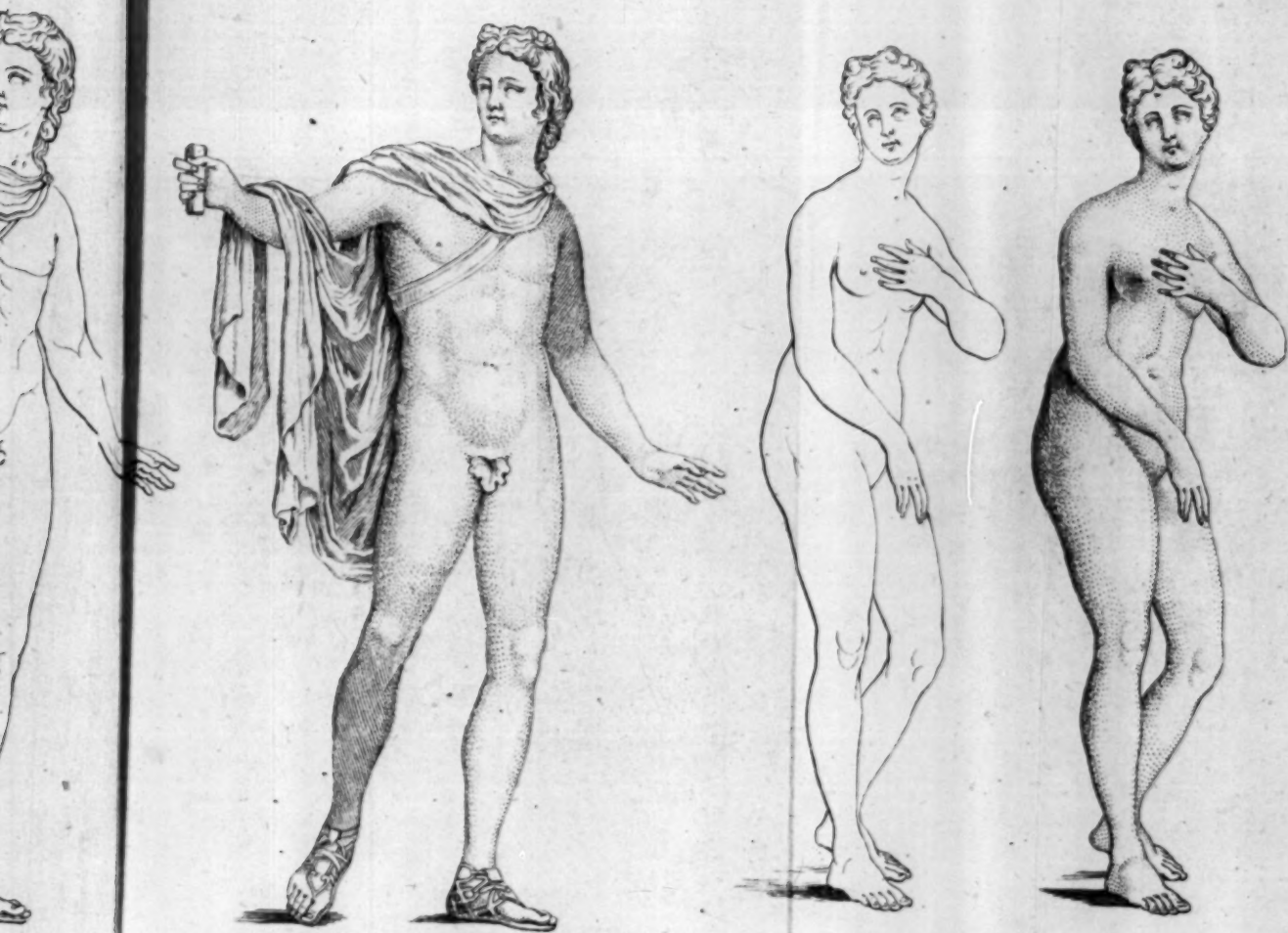


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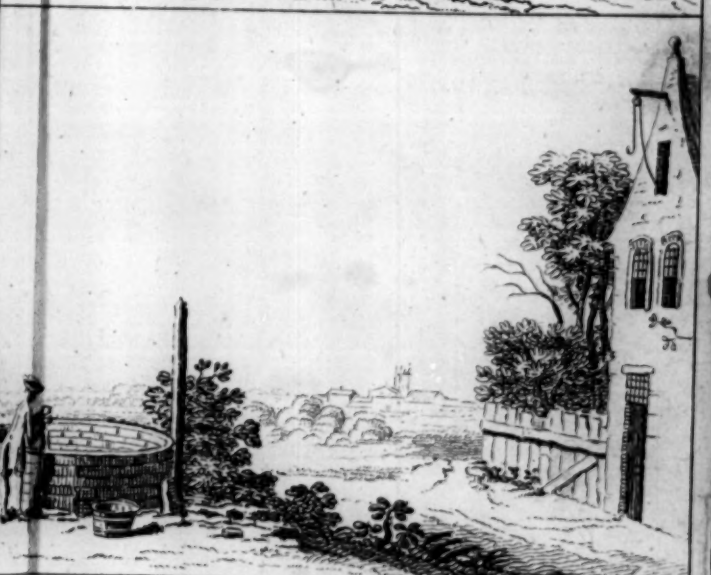
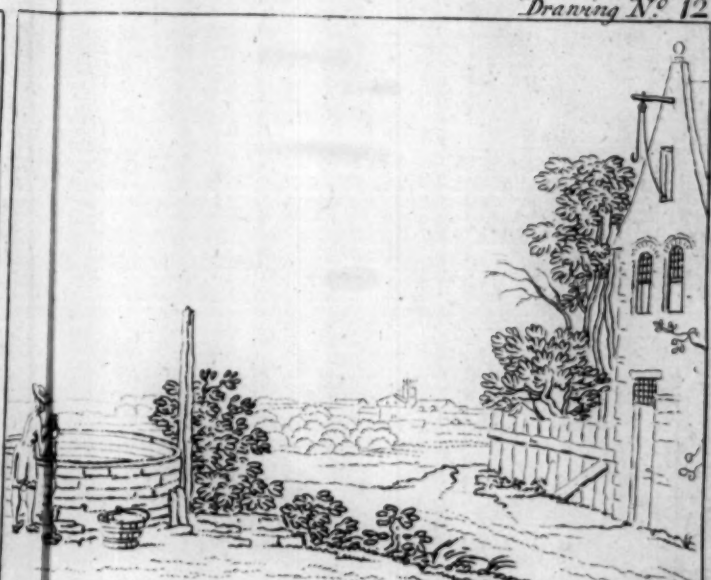


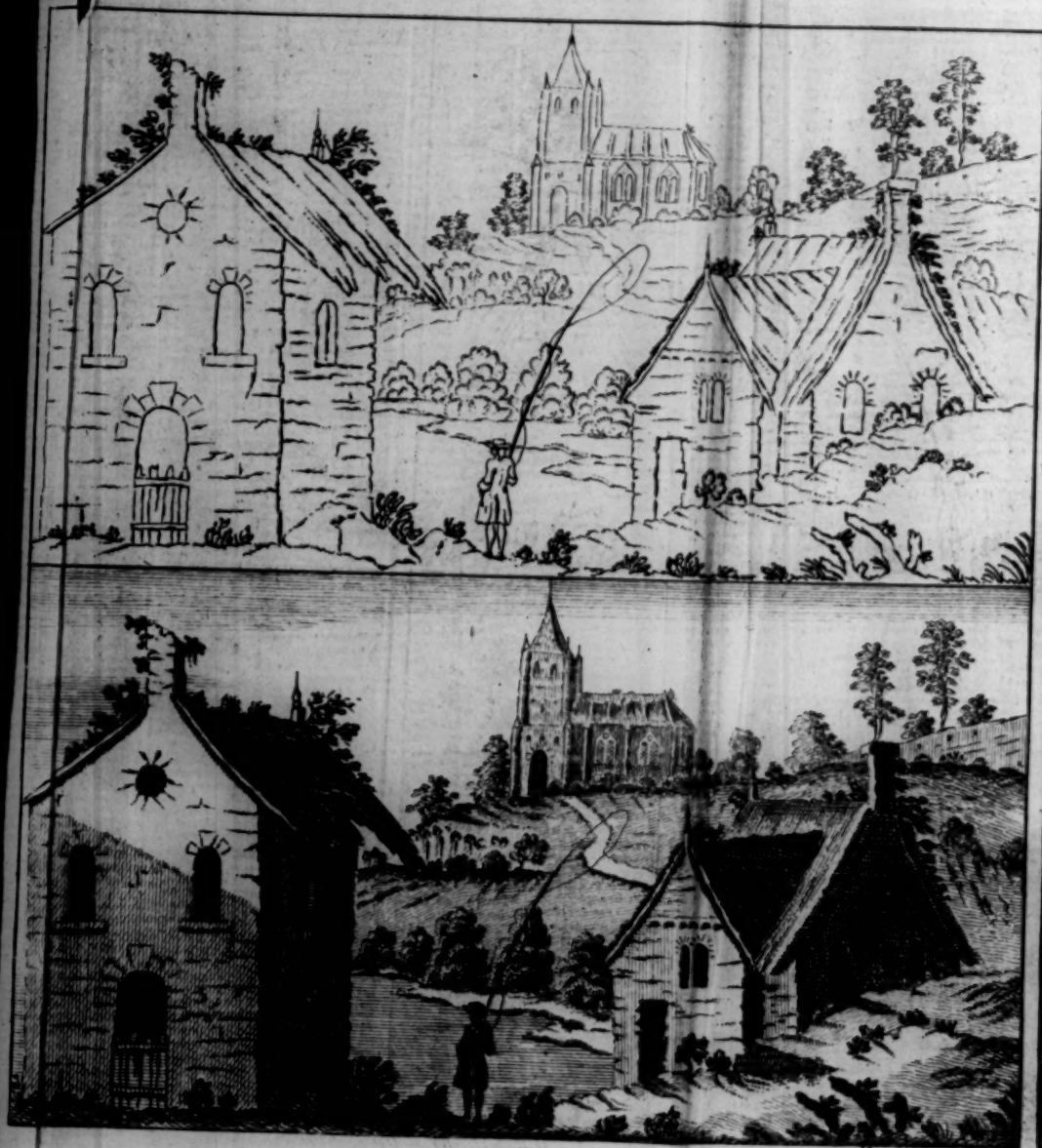
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